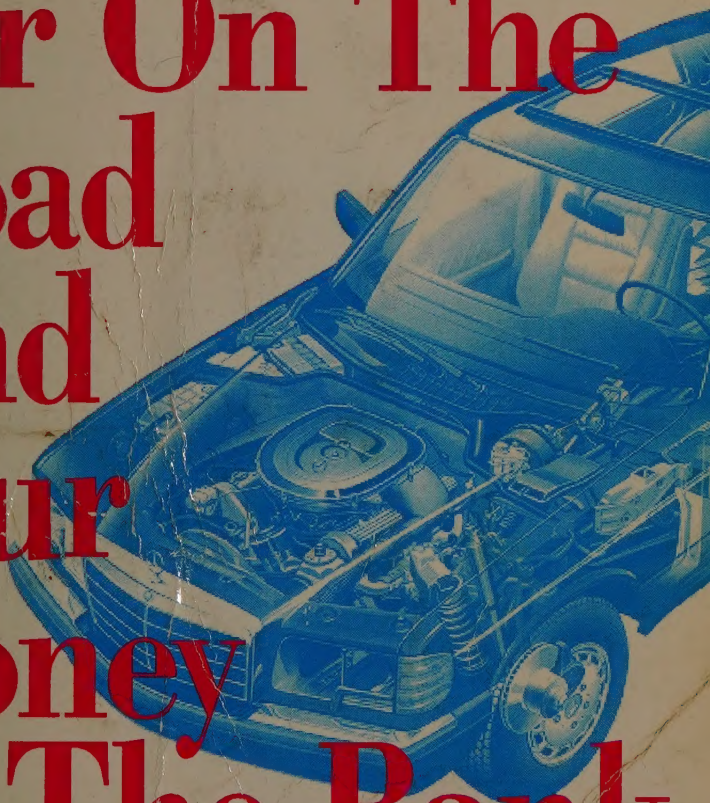


# Keep Your Car On The Road And Your Money In The Bank



How To Avoid Auto Repair  
Scams and Rip-Offs

Ernesto M. Colon

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# **Keep Your Car On The Road And Your Money In The Bank**

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Scams and Rip-Offs**

**Ernesto M. Colon**

**J. FLORES**

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MONEY IN THE BANK** by Ernesto M. Colon

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# About The Author

Ernesto M. Colon was born in Ponce, Puerto Rico in the early 50's and lived there until his family moved to Miami, Florida in 1965. Ernie credits his father with instilling him with his interest in cars at a very early age.

Ernie, as his friends would call him, has been involved with the automobile industry for close to thirty years. Not long after his family moved to Miami, he got his first "real" job pumping gas. Soon he was working with the station's mechanic where he first began to learn what made cars tick.

Over the last twenty years his experience has included working as a factory-trained technician specializing in Jaguar, Porsche, MG, Fiat, Mitsubishi and Nissan vehicles for several dealerships. He has owned and operated two successful businesses—a used car dealership dedicated to luxury exotic vehicles and an "on the road" auto servicing business. He spent three years in the Northeast as a maintenance service consultant for one of the largest corporate auto leasing corporations in the business. That experience provided a rich source of material for this book.

Over the last two years, besides writing this book, Ernie has been working in the field of building repair and maintenance. This is his first published work.



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# A Personal Note

This book took me over a year to write. Even though a large part of it is from personal experience some research had to be done. Exposing my chosen profession was not an easy task, but something I felt I had to do. As I mentioned throughout the book, I saw dishonest mechanics working next to me but it was only after working for the corporate leasing company that I was able to comprehend just how big the problem is. I hope that by being armed with the information in this book you can bypass the sharks in your path and come out ahead.

There are times in each of our lives when we have to stop and look around. If we think something needs fixing, we need to use our resources to go ahead and fix it even though there is risk that the outcome might backfire. Taking a year off from regular employment to try to inform people like you on how to avoid auto repair ripoffs was my way of getting back at those mechanics that have ruined the reputation of my chosen profession. It has reached the point that the public has gotten so burned that you probably assume every mechanic is a ripoff agent. I would have to say that today mechanics have about the same reputation as the “world’s oldest profession”. Believe it or not a few of us believe in dealing fairly and honestly with the public. I’m hoping that as a result of this book you will help the rest of them get the message that you will accept nothing less.

I would like to thank my wife and best friend Norma Segal for all her support during this period. Not only did she have to earn enough to support both of us, she was also the first translator and editor of this book. Under normal circumstances this may not be a difficult job. What you need to understand to fully appreciate the role she played is that I write as I speak and, since Spanish is my native language it made the

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editor's job somewhat more challenging. Therefore, I think that if I were to say to her "Honey, I've got a great idea for another book I'd like to write", I have no doubt that at the very least she would divorce me or at the worst have me kidnapped by terrorists and shot by a firing squad in a third world country somewhere. But now that we're finally done she really thinks this book was a good idea.

To conclude, I also want to thank my sister-in-law Susie Buzzard and her husband David for their help in editing and their continuous encouragement. My final thanks goes to all my friends for their ideas, support, and encouragement. A special note of thanks to those from the Outrigger in Miami.



# Introduction

Cars: The second major investment we make. Because it is a big investment, some people spend three times as much money as they should to keep it up. Other people fear spending all that hard earned cash and avoid servicing them.

Well, this book shows you a happy medium where you keep that costly investment in tip-top shape and save thousands of dollars while doing it.

One of the happiest times in someone's life is buying a car. Neighbors and friends come over to see it and usually ask, "How much did it cost?" "How fast does it go?" or "What's the gas mileage?" But they never ask how much maintenance or services cost over the life of the car. You don't even think about it, and manufacturers don't tell you. The only information manufacturers release is the gas mileage, (and sometimes not even that if the car is a gas guzzler). Manufacturers don't tell you the dealer charges, on average, \$75.00 for the first service at 7,500 miles. This might not seem like a lot of money, but I'm here to tell you, you're overpaying by about \$48.00. If you are anything like me, you know many ways of using that money rather than giving it away unnecessarily to someone else.

With this book, you will learn HOW TO CONTROL THE COST OF BASIC SERVICES AND REPAIRS. You will also learn how to deal with your shop, dealer or mechanic and discover they don't have the last word—you *do*.

Now let me give you a little history about myself. I've been in the automotive field for over 20 years, most of that time working on cars as a mechanic. During those years, I was trained by several manufacturers on their product lines. My last job took me to the corporate office of a

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major leasing company. My job title was a Service Specialist; in plain English—a phone mechanic.

This company leases a large number of cars to major corporations. When I say a large number, I mean about 500,000 cars and trucks. These corporations are responsible for paying for services or repairs those cars might require. Therefore, the leasing company offers an optional program to these corporations that can reduce the cost of maintaining those vehicles by at least 50%.

Here's how the program works. Imagine you have a rich Uncle Deepockets who loans you his car for an indefinite period. He tells you, "Don't worry about paying for anything on the car. Just send me the bills for gas, maintenance, tires ... whatever. I'll handle them." It's not your money so why should you worry about the cost? Word gets out and guess what? Your "trusted" mechanic and the dealer who originally sold your uncle the car learn of your good fortune. They're only too eager to serve you (and share in some of that good fortune). Your uncle starts panicking when huge bills arrive. He needs some outside help. That's where our services begin.

Once your uncle (the Corporation) contracts our help, that trusted dealer or mechanic consults us before any work is authorized for payment. We keep computer files on all maintenance and repair work performed, warranty coverage, scheduled maintenance, etc. We make sure repairs covered by warranty aren't paid by your uncle and that unnecessary work was not performed. In other words, we control your "nephew" having a fast one pulled on him. You know what they say, "You can't B.S. an old B.S.-er."

On a daily basis, I heard shocking stories from dealers, shops, and mechanics who would do their best to try and sell unnecessary repairs or make customers pay for services covered under a manufacturer's warranty. I can't believe how many dishonest dealers, shops or mechanics are out there. For your amusement, I'll include some stories I heard while I was working there.

Since my wife makes the big bucks in our household, I relocated along with her when she changed employers. Reminiscing about my

## Introduction

old job, I realized that the average person has no idea how much money he or she is spending on unnecessary repairs or maintenance on their car. About the only thing they can do when they take a car in for repairs is believe or trust the person they hand their keys to, and too often that trust is betrayed.

This brings me to you, Mr. or Ms. Average Consumer. If you're anything like most people, you unconsciously treat your mechanic like a nuclear physicist. When he starts talking valves and differentials, your eyes glaze over. Can you believe you put as much blind faith in this guy with the overalls and greasy fingernails as you would Marcus Welby, M.D.? (uh-oh, I'm dating myself). Where's all that confidence? Up until now you've been acting as if you're Uncle Deepockets, remember him?

But now I'm going to help you change all that. During my daydreaming about the good old days of helping manage repair costs for companies, it dawned on me that *you* could benefit from this knowledge. Right then and there, I decided to write a book on the subject.

I hope you find what follows both useful and interesting. You're in for a few surprises.

# 1

## Basic Information

This chapter is designed to give you general information you should know as a car owner. It covers everything from what parts to buy to what kind of gasoline to use. Also included are some trade secrets to arm you for future battles.

### WARRANTY PRESERVATION

Here's a simple tip to avoid battles over warranty repairs. While the car is still under warranty, be sure to always use original manufacturer's parts for any repair, including a simple oil change. For example: Oil Filter—Ford uses Motorcraft, GM uses AC, Chrysler uses Mopar, Toyota uses Toyota brand, Nissan uses a Nissan brand and so on. Many dealers reject warranty engine repairs if you have an off-brand oil filter installed. I have heard many excuses for rejecting warranty repairs. This one tops the list.

This doesn't mean you have to take the car to the dealer for a simple oil change; just buy the oil filter from the dealer and keep the receipt. Whenever I'm close to a dealer, I'll stop in the parts department and buy four oil filters at a time. If you have someone change the oil just give them the filter and have them install it.

### GASOLINE

Always use name brand gasoline; stay away from discount gas



## Basic Information

stations. The major oil companies spend a lot of money on researching and blending the right additives to ensure their gasoline is balanced with your car's fuel injection needs. Make sure you read your owners' manual on the octane your car requires. Most new cars can run on regular octane, making the medium and higher octanes an unnecessary expense. Don't be misled into buying higher priced gas by oil companies' ads falsely claiming you need higher octane in winter or summer. By choosing the right octane, you save a few dollars every time you fill up your tank (see chart below).

### GAS SAVINGS PER VISIT BY USING REGULAR

GASOLINE	PRICE	GALLONS	TOTAL	SAVING
Regular	\$1.00	12	\$12.00	
Medium	\$1.15	12	\$13.80	\$1.80
Premium	\$1.30	12	\$15.00	\$3.00

Let's expand the above chart over the course of a year. Assume you've driven the annual national average of 15,000 miles and you get 25 miles per gallon. This means you use 600 gallons of gasoline in one year for the 15,000 miles you travel (hope I haven't lost you yet). When you multiply 600 gallons times the \$.15 cents per gallon price difference for the medium grade, you save \$90.00. You'll save \$180.00 substituting regular for premium.

### DRIVE YOUR CAR FOREVER ALMOST REPAIR-FREE

Does that statement sound like one of those impossible claims you hear on a late night half-hour commercial when you can't sleep because you're worried about how to pay for the repair on your car? Yes, you can keep your car running virtually forever with only minor problems. The simple secret is in scheduled oil changes. My recommendation is to have them done like clockwork every 3,500 miles or so.

## **Keep Your Car On The Road**

In a later chapter we will cover a step-by-step schedule of all maintenance services you should do from now until eternity. Follow it and I assure you of having little to no problems with your car.

### **AIR CONDITIONING AND HEATER SYSTEMS**

Be sure to run both systems for at least five minutes twice a month and you'll find them running at their peak when you need them most. You'll discover more detailed information on these systems in the chapter devoted to this topic.

### **STATE INSPECTIONS**

If you live in a state requiring a state inspection and it is done by the state government, you are one of the lucky few. The problem starts when these inspections are done by local garages. When I lived in Florida, state inspections were run by the government. Except for the inconvenience of having to take the car to a state inspection center, they were a real service to the motorist. They did a thorough inspection and only failed your car on what was really in need of repair. Since they weren't in the repair business, they had no reason to be anything but honest.

When I moved to a state where the inspections were performed by "authorized" local garages, they would try to milk you for as much as possible. When I first moved there, I had my car inspected and approved in order to obtain a registration. I took my car to two different shops. Both found a lot of repairs "requiring immediate attention", to the tune of \$400.00 on an almost new car. At the second shop, I asked the mechanic to show me, step by step, where the problems were. I showed him my credentials and let him know I was not a happy camper. With his manager by his side and the threat of calling the police somehow, as if by miracle, my car suddenly didn't need any repairs and I was able to get the required sticker.

You can see from that story why I included this section in my book. I was outraged that a mechanic was trying to steal from me (I know you won't believe this, but it was my first ever encounter with a mechanic. I've always done my own repairs).

## **Basic Information**

From this I learned an extremely important safeguard I will share with you. If you are ever in a dispute with the mechanic over an inspection repair you can call the highway patrol and ask them to inspect what the mechanic is trying to sell you. When the mechanic arrives at an estimate and you say "I'm going to have to get a second opinion from the Highway Patrol" you will see how fast the estimate gets reduced. Why? Because they can lose their license to steal.

Never wait until the last few days to have your car inspected. If you wait until the end of the month the mechanic knows you have no time to shop around and compare estimates. If your mechanic was like mine, he will try to milk you to the last drop. Play it safe and take the car in the first few days in the month your inspection is due.

## **ACCIDENTS**

A few years back I went into partnership with a friend and opened a body shop. I gained some valuable insights from that experience you may find interesting.

If you have a minor fender bender or just need a paint job, your local bodyshop can handle that with no problem. But if you're ever in a real accident, take your car to a dealership that has its own body shop and specializes in fixing your brand of car. "Why?" For two very important reasons; one being a regular body shop works on all different car brands. While they may do a very good job straightening out folded metal, they are lousy when it comes to figuring out where a damaged part from a particular make and model came from and what it's meant to do. On the other hand, by using a dealer that sells and services your brand of car, the repair person can always check other cars just like yours and look for the part in question. The parts department is just down the hall. They can assist in locating the part number along with what it is used for. Remember, there are at least 50,000 different parts on cars nowadays—an impossible task for anyone's memory.

The second important reason is parts. At a dealership, you can be fairly certain that original parts will replace the damaged ones. In a corner body shop, they might use an inferior replica to replace the part.

## **Keep Your Car On The Road**

Why? Money. For example a part coming from the manufacturer could cost double or triple the price of the bogus one. So the body shop (and sometimes your insurance company) make a little extra profit.

### **INSURANCE**

Insurance companies may not be eager to settle your claim based on dealer estimates. So I feel it is necessary to add some information concerning your rights under your insurance. Insurance companies try to lure you away from the dealer for accident repairs. The reason is money. It costs much more to get a car repaired at the dealer than at the corner body shop. Don't let them do it. Just because they foot the bill is no valid reason for them to lure you away from the dealer. You also have the right to insist on factory parts. As a matter fact, you are entitled to them. You pay your insurance company big bucks for that guarantee.

So if you have any problems with your insurance company, tell them you will call the state insurance commissioner to straighten the matter out. This usually gets you a good response.

### **AVOIDING PROBLEMS ON THE INTERSTATE**

When traveling on our beautiful interstate highway system, there are a few things you need to watch out for. When your gas gauge starts begging you to stop, be sure to pick a self-service gas station, preferably one not in the repair business. You know, the ones selling milk instead of tires that force you to pump your own gas. I suggest this because some standard gas stations along highways have mechanics waiting to work and tires to sell —depending on the unsuspecting traveller to unload their labor and inventory.

Now tell me, how many times have you stopped at a gas station in the middle of nowhere and asked for a tune-up or a routine maintenance job? I'll bet you can't remember the last time, if ever. So be particularly careful if you stop at one of these stations while away from home. I have read and heard horror stories about stations like these. Remember those guys who were so nice? They checked your tire pressure and just happened to discover that one, two, or maybe all four tires had a cut.



## Basic Information

Weren't you lucky to find out in time? But wait, where did the slash come from? Well, while the nice little old man was checking the pressure, he also cut the tire. I've heard other stories about hiding a knife in a rag while pretending to check your oil and at the same time cutting belts or hoses.

Never leave your car unattended while in a gas station like this. When paying for the gas, make sure no one gets close to your car. In other words, if you need to use the restroom, use one in a nearby restaurant. An added bonus is that you can be sure it will be cleaner than the one in the station.

An interesting story happened to a good friend of mine. Returning from Colorado in his motor home, he stopped at a gas station in northern Florida. The attendant checked the oil. While he was at it, the attendant also punctured the top radiator hose just enough for the coolant to seep through while at the gas station. Being the only gas station in sight for many miles, the attendant figured my friend would double back as soon as he saw the temperature gauge climbing. Well, my friend has a habit of not paying much attention to gauges. In fact, he is famous for running out of gas. When he finally noticed the motor home was overheating, the smoke coming from the hood was blinding. By this time, he was very far from the gas station that created the problem. By the way, one good thing about travelling in a motor home is you carry food and water. He was able to fill the radiator with water until he got to another gas station (an honest one). They replaced the hose and told him it was obvious someone cut a gash in it. It was a little too late for his engine. He continued to Miami, stopping every 50 miles or so to fill the radiator and drove it directly to my house. Fifteen hundred dollars later, just in parts, (we bartered for him to cut my grass and paint my house for my labor) the engine was rebuilt. The moral is —check your own oil while on vacation. It could save you thousands.

## LEAVE DIAGNOSIS TO THE EXPERTS

Let's say your car is hesitating or feels like it is missing (misfiring) and you have your car at an independent shop. The first thing most

## **Keep Your Car On The Road**

people ask for is a tune up. This is the wrong thing to ask for. If a tune-up doesn't fix the problem, you still have to pay for it. Address this problem by having the mechanic check it out for you. If the mechanic says you need a tune-up, then ask if a tune-up will fix it. If the mechanic says yes and the tune-up doesn't fix the problem, you are not responsible to pay for his guess. On the other hand, if a mechanic says he is not sure but needs to start with the tune-up, you have two choices. You either move the car to a dealer or have this mechanic start there. If the mechanic starts with a tune-up, make sure he uses original parts (in this case just spark plugs). Because if the problem is more involved and your mechanic gives up, you'll have to take the car to a dealer. I assure you if the dealer/mechanic sees that the spark plugs are not the original, the first thing he will insist on is another tune- up before he checks anything else out. If you paid the previous shop for a tune-up, you will not want to spend that money again.

## **FUEL INJECTION BLUES**

Another item that repair shops like to sell is a fuel injection flush. This repair was necessary on early fuel injector cars. When manufacturers first introduced cars with fuel injection systems, gasoline was not yet formulated to be compatible with the system and there was a need to clean the fuel injectors. Nowadays oil companies have caught up with the fuel injected cars and have added chemicals to keep fuel injectors clean. Therefore, if the mechanic tells you to get a "fuel injection flush" to keep fuel injection system clean tell him, "No thanks" and you'll save about \$69.00.

## 2

# Buying A New or Used Car

With the wide variety of car models available today, buying a new car is not as simple as it used to be.

The state of the car industry has turned purchasing a new automobile into a symbol of your level of patriotism. Answering the question, "Should I buy an American-built car or an import?" is not as simple as it sounds. Believe it or not, the first thing to determine is just which cars are considered "American built". My understanding of "American-made" is a car built in America. Others say it is a car built by an American company. Which is right? Basically, neither statement is 100% true. The majority of the American public thinks all the pressure to "buy American" means an American product built in the U.S. of A.

The truth is, an American-built car can be a car assembled in America with most parts manufactured in another country. American car companies also build their cars in other countries like Mexico, the UK or Canada and ship them back to the U.S. for resale. Often not even the parts are manufactured in American factories.

Before you start calling me names that went out of fashion when they took down "The Wall", let's look at some real-life examples. The "Big Three" American automakers, GM, Ford and Chrysler, would like you to think when you buy one of their models you're "buying American".

## Keep Your Car On The Road

The following models (which are all sold as American cars), are actually built by Japanese manufacturers:

**Chrysler**—Dodge Colt and Dodge Daytona (Mitsubishi)

**Ford**—Probe (Mazda)

**GM**—Geo Storm (Isuzu)

For 1993, the Geo Metro hatchback is not only made by Suzuki and GM plant, it is made in Canada!

I'm not saying don't buy these products, just do it for the right reasons. These manufacturers want you to think you are doing your part for the American economy by buying an American car. As you can see, American jobs are not automatically saved as a result of your purchase. If buying American is important to you, be sure to research where the make and model you are considering was produced and who manufactured it before making your purchase. On the other hand, something good has to be said about foreign companies who have invested here by building new factories, training American workers, and learning our language and customs. Many of them are making their products with American sweat, even though it means paying higher labor costs to accomplish this goal.

With that controversy behind us, you need to develop a list of features, benefits, and constraints to help narrow the choices down to those that are really important to you. Let me offer a little professional advice about what would top my list.

Although you need to be mindful of your financial limitations, don't make that your guiding principal. It's much better to use price range as a general guideline. First and foremost, you should look for safety features. As you begin to narrow your choices, the car you select should be equipped with all or most of today's safety items. The most common and effective features available are the air bag and anti-lock braking system (ABS). A number of cars are available that include either of these features (as standard or optional equipment), for under \$10,000. These two items could be life saving in the event of an accident. That's



## Buying A New or Used Car

something you can't put a price tag on. See the chart at the end of this chapter for the safety equipment currently available on all of today's makes and models.

Secondly, you should look for what kind of warranty the manufacturer offers. You want as much warranty coverage for as long as possible, especially for big ticket items like the powertrain. Don't be misled by manufacturers' ads implying their new warranty is better than the old one. In the chapter I've devoted to warranties, you'll find a comparative chart. By using this chart, you will see who offers the best warranty at the time of this writing.

After safety features, warranty coverage, and determining your price range, you can consider the fun aspects of the purchase such as color, interior, comfort options, etc. I recommend buying a book on purchasing a new car to help you with other information like price and options.

A final word when purchasing a new car. Don't buy a new car the first year it's introduced. The first year is when the manufacturer really gets to test the model. Problems not anticipated in the design and from limited test cases emerge the first year, sending the engineers back to the drawing board to get it right. You'll possibly see more of your dealer than you bargained for when responding to recalls.

After completing your homework, you'll know exactly which car is the safest, offers the best warranty, has the features you're looking for and know exactly how much to offer the dealer. That's what I call an intelligent consumer.

Below is a chart of manufacturers' safety features

### ANTI-LOCK BRAKES AVAILABILITY

<b>Acura</b>	Integra,RS/LS	N/A
	Integra,GS	Std
	Legend,NXS,Vigor	Std
<b>Alfa Romeo</b>	Spider	N/A
	164 Base	N/A

## Keep Your Car On The Road

### ANTI-LOCK BRAKES AVAILABILITY

	164 L, S	Std
<b>Audi</b>		
	All models	Std
<b>BMW</b>	<b>Std</b>	
	All models	Std
<b>Buick</b>		
	Century	Std
	LeSable, Park Avenue	Std
	Regal/Custom	Std
	Regal/L, GS	Std
	Road Master	Std
	Skylark	Std
<b>Cadillac</b>		
	All models	Std
<b>Chevrolet</b>		
	Astro, Safari	Std
	Berreta	Std
	Camaro	Std
	Caprice, Cavalier	Std
	Corsica, Corvette	Std
	Lumina	Opt
	Lumina/APV	Std
	S10/Jimmy	Std
<b>Chrysler</b>		
	Imperial	Std
	LeBaron	Opt
	New Yorker	Std
	Town & Country	Std
<b>Dodge</b>		
	Caravan	Opt
	Colt	Opt
	Daytona	Opt
	Dynasty (V6 only)	Opt

## Buying A New or Used Car

### ANTI-LOCK BRAKES AVAILABILITY

Intrepid	Opt
Shadow	Opt
Spirit	Opt
Stealth, all models	Std

#### Eagle

Summit, Vision	Opt
----------------	-----

#### Ford

*Aerostar	Std
Crown Victoria	Opt
Escort GT	Opt
Explorer	Std
Mustang	Opt
Probe	Opt
Taurus	Opt
Taurus/SHO	Std
Thunderbird/LX	Opt

#### Geo

Metro, Storm	N/A
Prizm	Opt
*Tracker	Std

#### Honda

Accord/DX, LX	Opt
Accord/EX, SE	Std
Civic/CX, DX, LX, VX, Si	Opt
Civic/EX	Std
Civic del Sol	N/A
Prelude/S	N/A
Prelude/Si	Std

#### Hyundai

Sonata, Elantra	Opt
Other models	N/A

#### Infiniti

All models	Std
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## Keep Your Car On The Road

### ANTI-LOCK BRAKES AVAILABILITY

#### Isuzu

*Amigo	Std
Impulse/XS, Stylus	N/A
Impulse/RS	Opt
*Rodeo	Std
Trooper/LS	Std

#### Jaguar

All models	Std
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#### Jeep

Cherokee, Wrangler	Opt
Grand Cherokee	Std

#### Lexus

All models	Std
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#### Lincoln

All models	Std
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#### Mazda

*MPV	Std
MX3	Opt
MX3/GS, Miata	Opt
*Navajo	Std
RX7	Std
323, Protege	N/A
626, MX6	Opt
929	Std

#### Mercedes Benz

All models	Std
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#### Mercury

Capri	N/A
Cougar	Opt
Grand Marquis	Opt
Sable, Tracer	Opt
Topaz	N/A
Villager	Std

## Buying A New or Used Car

### ANTI-LOCK BRAKES AVAILABILITY

#### Mitsubishi

Diamante/ES	Opt
Diamante/LS	Std
Eclipse/base	Opt
Eclipse/GS	Opt
Eclipse/GSX	Std
Expo/base	N/A
Expo/LRV Sport,SP	Opt
Galant	N/A
Mirage/S,ES,LS 2dr	Opt
Mirage/LS 4dr	Opt
Montero/base	N/A
Montero/LS	Opt
Montero/SR	Std
300GT/base	N/A
300GT/SL.VR-4	Std

#### Nissan

Altima	Opt
Maxima,NX 2000	Opt
NX 1600	N/A
*Pathfinder	Std
Quest GXE	Std
Quest XE	Opt
Sentra/E,XE,SE	N/A
Sentra/GXE,SER	Opt
240SX/base	N/A
240SX/SE	Opt
300ZX	Std

#### Oldsmobile

Achieva	Std
Bravada	Std
Cutlass/Ciera	Std
Cutlass/Supreme	Std



## Keep Your Car On The Road

### ANTI-LOCK BRAKES AVAILABILITY

	Eighty Eight	Std
	Ninety Eight	Std
	Sihouette	Std
<b>Plymouth</b>		
	Acclaim	Opt
	Colt	Opt
	Laser	N/A
	Sundance	Opt
	Voyager	Opt
<b>Pontiac</b>		
	Bonneville	Std
	Firebird	Std
	Grand Am	Std
	Grand Prix	Opt
	Sunbird	Std
	Trans Sport	Std
<b>Porsche</b>		
	All models	Std
<b>Saab</b>		
	All models	Std
<b>Saturn</b>		
	All models	Opt
<b>Subaru</b>		
	Justy	N/A
	Legacy/L, Impreza/L	Opt
	Legacy/LS,LSi	Std
	Loyale,Swift	N/A
<b>Suzuki</b>		
	SVX,*Side Kick	Std
	Impreza/LS	Std
	SVX/L	Opt
	Others	N/A
<b>Tbyota</b>		

## Buying A New or Used Car

### ANTI-LOCK BRAKES AVAILABILITY

Camry	Opt
Celica	Opt
Corolla	Opt
Land Cruiser	Opt
MR2,Paseo	Opt
Previa,Tercel	Opt
Supra	Std
*4Runner/4 cyl	Opt
*4Runner/6 cyl	Std

#### Volkswagen

Cabriolet	N/A
Corrado, Passat	Std
Euro Van,Passat	Opt
Fox	N/A
Golf/GL	Opt
Jetta/GL,GLS	Opt
Jetta/GLX	Std

#### Volvo

All models	Std
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\*Rear wheels only

### AIR BAGS AND AUTOMATIC SEAT BELTS AVAILABILITY

Vehicle	AIR BAG		AUTOMATIC BELTS	
	Driver	Passenger	Motorized	Non Motor
<b>Acura</b>				
Integra	Std	Std		
Vigor/LS	Std			
Vigor/GS	Std	Std		
Legend, NSX	Std	Std		
<b>Alfa Romeo</b>				
All models	Std			

## Keep Your Car On The Road

Vehicle	AIR BAG		AUTOMATIC BELTS	
	Driver	Passenger	Motorized	Non Motor
<b>Audi</b>				
V8 Quattro, 100, S4	Std	Std		
90	Std	Std		
<b>BMW</b>				
All models	Std	Std		
<b>Buick</b>				
Skylark, Regal				Std
Century Custom/Ltd	Std			
Century Special	Opt			Std
Park Avenue	Std			
LeSable, Riviera	Std			
Roadmaster	Std			
<b>Cadillac</b>				
All models	Std	Std		
<b>Chevrolet</b>				
Camaro	Std	Std		
Corsica, Beretta	Std			
Caprice, Corvette	Std	Std		
Lumina, Cavalier				Std
<b>Chrysler</b>				
All models	Std	Std		
LeBaron Sedan	Std			
<b>Dodge</b>				
Caravan	Std	Std		
Colt	Std			
Intrepid, Stealth	Std	Std		
Others	Std			
<b>Eagle</b>				
Vision	Std	Std	Std	
Summit	Std			
Others			Std	
<b>Ford</b>				

## Buying A New or Used Car

Vehicle	AIR BAG		AUTOMATIC BELTS	
	Driver	Passenger	Motorized	Non Motor
Aerostar, Escort	Std			
Crown Victoria	Std			
Mustang, Prove	Std	Std		
Taurus, Thunderbird	Std	Std		
Tempo	Opt		Std	
Others			Std	
<b>Geo</b>				
Prizm	Std	Std		
Others				Std
<b>Honda</b>				
Civic/EX coupe	Std	Std		
Accord	Std	Std		
Prelude	Std	Std		
<b>Hyundai</b>				
Sonata	Std	Std		
Excel, Scoupe				Std
Elantra	Std			
<b>Infiniti</b>				
G20	Std	Std		
Q45	Std	Std		
J30	Std	Std		
<b>Isuzu</b>				
All models	N/A			
<b>Jaguar</b>				
All models	Std	Std		
<b>Lexus</b>				
LS400, SC300/400	Std	Std		
ES300	Std	Std		
<b>Lincoln</b>				
All models	Std	Std		
<b>Mazda</b>				
929, MX3	Std	Std		

## Keep Your Car On The Road

RX-7,MX6	Std	Std
Miata,626	Std	Std

### AIR BAG      AUTOMATIC BELTS

Vehicle	Driver	Passenger	Motorized	Non Motor
MPV	Std			
323/Protege			Std	
<b>Mercedes Benz</b>				
190E	Std	Std		
Others	Std	Std		
<b>Mercury</b>				
Capri	Std	Std		
Cougar	Std	Std		
Sable,Gr Marquis	Std	Std		
Topaz	Opt		Std	
Villager, Tracer	Std			
<b>Mitsubishi</b>				
Eclipse			Std	
Expo	Std			
Galant	Std	Std	Std	
Montero, Mirage	Std			
Precis				Std
300GT,Diamante	Std	Std		
<b>Nissan</b>				
Altima	Std	Std	Std	
240SX coupe			Std	
240SX convertible				Std
300ZX, NX	Std	Std		
Sentra 2-dr	Opt			
Sentra GXE,Quest	Std			
Sentra, Maxima	Std			
<b>Oldsmobile</b>				
Achieva	Std			
Eighty-Eight	Std	Std		
Ninety-Eight	Std	Std		



## Buying A New or Used Car

Vehicle	AIR BAG		AUTOMATIC BELTS	
	Driver	Passenger	Motorized	Non Motor
Cutlass Ciera	Std			Std
Cutlass Supreme	Std			
Silhouette	Std			
Others				Std
<b>Plymouth</b>				
Laser			Std	
Voyager	Std	Std		
Others	Std			
<b>Pontiac</b>				
Bonneville	Std	Std		
Firebird, Grand Prix	Std	Std		
Grand Am	Std			
Trans Sport	Std			
Others				Std
<b>Porsche</b>				
All models	Std	Std		
<b>Saab-1993</b>				
All models	Std			
<b>Saturn</b>				
All models	Std			
<b>Subaru</b>				
Justy, SideKick				Std
Loyale, Swift				Std
Legacy	Std		Std	
Impreza	Std	Std		
SVX	Std	Std		
<b>Suzuki</b>				
All models				Std
<b>Toyota</b>				
Camry, Celica	Std	Std		
Corolla, Previa	Std	Std		
Paseo, Tercel	Std			

## Keep Your Car On The Road

Vehicle	AIR BAG		AUTOMATIC BELTS	
	Driver	Passenger	Motorized	Non Motor
4 Runner				Std
Land Cruiser				Std
MR2, Supra	Std	Std		
Others-exc.trucks	Std			
<b>Volkswagen</b>				
Cabriolet	Std			
Corrado	Std	Std		
Jetta, Golf	Std	Std		
Others				Std
<b>Volvo</b>				
All models	Std	Std		

Please check with your dealer as this information changes often.

## USED CARS

Considerations when buying a used car are different than a new car. For example, the issue of "buy American" is immaterial in a used car. Nobody cares if you bought a used car built on another planet. One consideration that remains the same is safety. Air bags have been standard in some cars since 1990. This is a valuable feature if it is available on any of your choices. Price guides are also available for used cars. Buy one and keep in mind that used car prices change on a monthly basis, so be sure to get the latest version.

After you've found a car you're serious about, have a mechanic check it out before you buy it. He can spot repairs the car might need that you might miss. This could save you a lot of money. The cost of having a mechanic check it out is usually \$50.00. Find out if he will apply that payment toward any repairs if he does the work. Most of them will. Believe me, he usually finds more than \$50.00 worth of repairs needing his attention. With this information, you should be able to renegotiate the asking price and usually either get the car for the lower price or get it repaired.

I'll share a little story about a car I checked for a customer. This car

## **Buying A New or Used Car**

appeared spotless to me. It seemed to be in such good shape that it looked better than new. After completing all the checks I could do at my shop, I took it for a road test. I heard this little whining noise in the rear that sounded like a tire noise. I took it back to the shop, where I removed the rear tires for the second time to look at the brakes or anything else that could be causing this noise. Bear in mind the noise was so slight my customer never noticed it. After looking at everything, I rotated the tires thinking it might be coming from them. I took it on another road test and the noise was still there. My next hunch was the noise could be coming from the differential. This time, I decided to check the oil. This oil was unlike anything I was used to. I thought maybe I stumbled onto something and decided to change it (for a big \$2.00 investment) to see the old oil. When I took the drain plug out, hardly any oil came out. I knew something had to be in there, so I took a screwdriver and tried to clean out the hole. What started coming out was heavy globs of grease instead of oil. At that point, I put back the drain plug, added oil, and told my customer what I had found.

My customer tried to renegotiate, but the dealer stubbornly held to his price and lost the sale. Even so, my customer was happy I saved him several thousand dollars in repairs on a “like new” Mercedes 450SL. We felt badly for whoever finally bought the car without bothering to check it out first. Spend the \$50.00 for an objective, expert opinion. You’ll find it is money well spent.

There are many tricks that anyone knowing something about cars can do, to cover up a problem. You may not be aware that there are a wide variety of products available to help accomplish just that. If this sounds surprising to you, next time you go to your local department store, wander through the automotive section. You will see a complete display of “fix in a can” products. Only a trained mechanic can tell if any of those products have been used on the car you are planning to buy. If they have, pass it by.

If you buy a used car from a dealer, try to get some kind of warranty to cover you for at least three months and 4,000 miles for the powertrain. This way, if something goes wrong with the engine, transmission or

### **Keep Your Car On The Road**

differential, you will not be stuck with a huge bill. Stay away from “as is” cars from a dealer. “As is” means the dealer probably knows something you don’t and is not about to pay for any repairs after the car is sold. Once you’ve signed on the dotted line, you won’t have a leg to stand on in court if that car disintegrates in a week.

The bottom line in purchasing either a new or used car is —keep your priorities straight and do your homework so you don’t experience the pain of buyer’s remorse.

# 3

## Choosing A Shop

Choosing a shop is one of the most important things you need to do when owning a car. Even more important is choosing the right one that will admit when they have made a mistake or will honestly tell you “the problem is more than we can diagnose or handle”. A shop like that is not in the business to experiment with your car and your money. This chapter shows you many techniques to help you choose the right shop.

Some of you might choose a local tire or department store for repairs and services on your car. I chose to separate the regular shops from these kind of shops because they operate differently. The next chapter is dedicated to national chain stores. Much of the information in this chapter can be applied to finding an honest shop among them as well.

Finding an honest shop is not as easy as finding a good restaurant. The appearance of a shop or its personnel don't help matters any. As the old saying goes “you can't judge a book by its cover”. As a matter fact, I have an ad from a shop that says “Mechanic Wanted ...Must Look Honest” (this says a lot).

Whether you choose a dealer or an independent to work on your car, here are some important recommendations for you to follow. First, make sure you are able to speak directly to the mechanic. I'm not saying bypass the service writer, but have the mechanic present while the service writer is noting your complaints or problems. You might wonder why you need the mechanic present when the service writer is taking



## Keep Your Car On The Road

your information. Well, that's the reason. He is writing whatever *you are telling him*.

In most cases, the service writer is a salesperson on commission. He has little or no idea how to repair your car. Therefore he or she doesn't have the knowledge to ask vital questions relating to your particular problem. Some dealers give a bogus title to their service writer to fool the customer. Often they are called a service manager or assistant service manager. This is so you will deal directly with this person instead of bothering the real service manager. Often if you think you are dealing with the boss, you assume you are going to get better service than you would from just a service writer (an order-taker). You won't believe how many dealers I worked for with this phony policy.

Let me elaborate on speaking directly with the mechanic. Suppose you have a noise in the rear of your car. The service writer writes "check noise in rear". Later that day, you return to pick up your car and the repair order says: "No problem found" or "Cannot duplicate problem at this time". That will be \$25.00 for the mechanic's time to check out your problem. It could be worse. You could be paying for "straight time" (which means how long it takes) to find a problem. This usually turns into serious money.

Take the same situation, but this time you speak directly to the mechanic. The mechanic asks you a number of questions to determine under what conditions you experience this problem i.e., it only makes the noise when going 37 miles an hour, on a straight road with a slight incline when it's raining with two fat guys in the back seat (don't laugh, I had a case just like this). All this information is vital to pinpoint the problem. It also saves you lots of money by eliminating many unnecessary checks to pinpoint the problem. Remember, time is money. If the mechanic has all the necessary information and can question you directly, you'll come out ahead.

Never let the service writer diagnose the problem with your car. Remember, he or she is a salesperson on commission. Most of them don't even know how to open a hood. In other words, if your engine is misfiring and the service writer says you should have a tune-up and

## Choosing A Shop

“check it all out”, be careful. Chances are that the “check it all out” part is where your problem lies. It may only be a loose ground or spark plug wire, but because you agreed with the service writer to do a tune-up, you pay for the tune-up along with whatever actually fixes the problem.

One important word the consumer should learn is “patience” when taking their car in for repairs. Most people take the car in and have someone follow them to pick them up or rent a car from the dealer and go on their way. It is very important to take a few extra minutes and wait for the diagnosis of your problem. In most cases, if you tell the service writer you are leaving the car for the day but will wait for the diagnosis, he or she will tell the dispatcher or mechanic you are waiting and makes sure your car goes directly into the shop. This way you can supply the mechanic with additional information for a more accurate diagnosis. If the mechanic cannot find the problem, go out on a road test with the mechanic to point out the problem. I don’t know how many times I’ve had customers return to the shop to go on a road test with me to point out whatever he or she was talking about. By wasting those few minutes up front, you save time and money in the long run.

— In most states, by law, a shop has to call you with a repair estimate before starting the actual work on your car. Make sure you get that estimate in writing. This could be an inconvenience if you have to return to the dealer to pick it up. You can eliminate the inconvenience by having it faxed to you. With a copy of the estimate, you avoid being surprised when you go to pick up the car. I once worked with a service writer that called the customer with an estimate of, let’s say, \$100.00. The customer agreed with his estimate, only to find out that the \$100.00 he was quoted over the phone is \$400.00 when it’s time to pay the bill. The shop can get away with this because they know the phone company keeps records of all phone calls. The shop can prove they called you at whatever time they made the call and have complied with the law. Remember that what was said in the call is not recorded so the customer is in a situation where, if he doesn’t pay the bill, the shop can legally put a mechanic’s lien on the car and keep it until the bill is paid. With a written estimate, the ball is in your court.

## Keep Your Car On The Road

Make sure *before you sign* on the dotted line of the repair order you understand everything written on it. Don't sign the order if the service writer wrote his own recommendations on it. After you sign, you are responsible to pay for whatever has been approved.

Tell your service writer to write "customer wants all used parts". This is another way to avoid unnecessary repairs. The mechanic will think twice before replacing a part that is perfectly good. Remember, he doesn't want to go to jail for stealing. If you have the parts, you've got a case.

If a shop refuses to do any of these things, find another one. There is a 99.9% chance you just avoided a dishonest shop.

Changes in cars over the last several year have made them technically more complex. This means an excellent mechanic working on Fords might be lost with a Chevy. I recommend finding a shop specializing in your make car. A mechanic experienced working on your particular brand has less trouble finding the problem and saving you money by avoiding unnecessary diagnostic work.

Don't try to diagnose the problem yourself, and don't let a friend or a relative that is not a "qualified mechanic" diagnose it either. This costs consumers millions of dollars every year. Let's say there is a noise coming from your front wheels. Your trusty friend or relative says it is your brakes. Now you think you really need brakes, so you take the car to your shop and tell the mechanic you think you need brakes, so please check it out. He takes the car into the shop and comes back a few minutes later saying "yes, you need brakes". You made the mechanic's job real easy by selling yourself on a brake job. You authorized the repair and a funny thing happens on the way home—the little noise is still there. Now you're upset because your diagnosis didn't fix the problem and you take the car back. This time, you tell the mechanic only the *symptoms* of the problem. Your mechanic takes the car into the shop, does his diagnosis, and later brings out the car saying "all you need is a simple grease job costing \$5.00". Did you need a brake job? Only the mechanic knows, and he won't tell. There is a 95% chance you didn't.

Some people recommend choosing a shop with a certified mechanic.

## **Choosing A Shop**

I don't put much stock in this approach. The reason, (knowing what's required for the certification), is I don't believe the so-called "certified mechanic" is any more qualified to do the work. The certification exam is a multiple choice written test. The test doesn't include application of theory through hands-on work. I've seen many good mechanics fail the test because they were not good taking written exams. I read an article about a reporter who passed all eight mechanic's tests and has never worked on cars! You are better off finding out if the mechanic has been awarded a plaque from the manufacturer for courses taken and successfully completed.

### **MECHANIC MOTIVATION FOR RIP OFF**

The main culprit for this is something called a flat rate. A flat rate is how a mechanic gets paid, and is the most common approach used in the industry. This is a two-edged sword which I'll explain in a minute. Flat rate was originally designed by the manufacturer to establish guidelines on how long a repair should take. The reasoning behind this approach was to eliminate dragging out the time it takes to do repairs under warranty. If a repair is flat rated at one hour, that's what they will be paid by the manufacturer for that repair. If the mechanic takes longer than the established time, he still only gets one hour's pay.

The manufacturer takes into account many situations and conditions in calculating the flat rate time so, nine times out of ten, it is accurate. If the manufacturer says it takes an hour to do a repair, you can bet the farm it takes an hour. Unfortunately, when the average Joe pays the bill, the guidelines change. They no longer look at the factory flat rate book but instead use another book made by an independent company that takes the factory rates and adds 50% to 100%. In other words, on the job the manufacturer said should take an hour, you are charged one and a half to two hours even though it is likely to take only one hour.

The double-edged sword means, basically, a mechanic who is on flat rate has two incentives to rip you off. One is the flat rate book; the second is an incentive to sell you on as much repair work as possible. The outcome is to work as fast as possible to complete the job. By completing

## Keep Your Car On The Road

eight jobs at an hour each that are flat rated at two hours, he can get paid for 16 hours' work in an eight hour day. If he's a real hustler, he can make 20 to 30 hours pay in one day. This is a big reason why quality is way down. With the incentive to work as fast as possible, a few things are likely to be missed.

Although you will not be able to change industry practice when it comes to mechanic's pay, there is a simple approach to lessen the chance of the mechanic ripping you off. Develop a friendly relationship with your mechanic just as you would with a co-worker. This gives you another reason to speak directly to the mechanic, as suggested earlier. In this way, you can start to develop a personal relationship. He may not care about ripping off a stranger, but will think twice before doing it to a friend.

My final advice on this subject is *tip the mechanic before he starts working on your car*. This further reduces the likelihood you will be ripped off. By the same token, *never tip the service writer*. The tip won't be shared with the mechanic, so the mechanic is still likely to sell you unnecessary repairs.



# 4

## National Chain Store Auto Repair Centers

National chain store auto repair centers operate differently than a dealer or regular repair shop. Many people still think of Goodyear or Firestone as just tire stores. You would be surprised at the variety of work they get involved in, often with limited knowledge required to do the repairs. You see these repair shops every day, and often shop in some of them for furniture and toys. They run the gamut of being highly specialized in one or two repairs to full-service centers. Some examples include Goodyear, Firestone, B. F. Goodrich, General Tire Store, Midas, Meineke, Jiffy Lube, Precision Tune, Aamco, K-Mart, Wal-Mart, and the ever popular Sears.

While I was working for the leasing company, we referred drivers to these stores for their everyday needs. A main reason was convenience. They provide fast in and out service. When a driver is dependent on their car for a paycheck, fast service is a necessity. But this kind of service often comes at a high price.

In all fairness, I'll start with the good news.

The good news about using these stores is that, in most cases, they are able to do the repair while you wait. Many of these stores are open on Saturday and Sunday, making it even more convenient to the average working person. They offer a better warranty on their work than dealers

## Keep Your Car On The Road

do for the same repairs, and the price of a repair is usually much lower than a dealer.

More good news, which you may not have thought about, is that most of these stores have good insurance coverage. I'm not referring to insurance for valuables left in your car—no shop is responsible for that. Nor am I talking about insurance for them to drive your car—your auto insurance covers that. I'm referring to insurance covering their mistakes and mishaps which may occur while your car is being repaired. Suppose the mechanic forgets to tighten the oil filter or drain plug and you notice a loud knocking sound on your way home. Correcting this could cost a few thousand dollars. If, like many small independent shops, they don't have insurance, you are up the creek without a paddle. In most cases when something like this happens, you are forced to sue the shop. This is a painful, lengthy and expensive process which, when it's all over, may net you \$20.00 a month paid over 20 years. Maybe. In another words, make sure the shop you choose has insurance for their "little" mistakes.

As I mentioned before, the warranty is another good reason to use national chain stores. Unfortunately, the problem I've run across is that some stores appearing to be part of a nationwide chain refuse to honor the warranty from other stores. What I've found is that some of the stores are company-owned while others are independent franchises. They look the same and sell the same products, but some are actually privately owned and operated. In other words, they don't always follow the same rules as the company-owned stores. If you use one of these national chains, avoiding this problem is easy. Just do a little homework first. Make sure the one you use is a company-owned store. This saves you lots of aggravation if you need to exercise the warranty at a later date or in a different town.

Now, let's talk about the negatives.

Like every shop we've talked about, these mechanics and service managers are on commission. In addition to salary and commission, some stores offer special incentives to both the mechanics and service manager to sell you something. For example, this month's incentive

## National Chain Store Auto Repair Centers

may be on shocks. The incentive works like this. Once the mechanic sells a preset number of shocks within a certain period, he qualifies for a paid day off, special gift, cash bonus, etc. What's worse is that some companies require their mechanics and service managers to meet a weekly or monthly quota on, for example, shocks. Although the items change from one week or month to the next, the important point is if they don't meet the quota, they are surely reprimanded and, if not met often, sometimes fired. You should ask yourself whether, the last time you took your car for an oil change and they suggested your brakes were worn, whether you needed the brake job or were unwittingly paying for a bonus program. You need to take charge of the situation by asking the right questions to determine whether the car needs the service or not. Throughout the book, I cite examples of simple means to verify their claims. Take the time to ask the right questions and examine parts before saying "go ahead and do it".

High pressure quota and incentive practices are very common in national chain auto repair centers. You may have read in the paper or seen on television how one of the largest national retailers in the country was caught utilizing these pressure tactics in several states. The CEO of the company appeared in a national television ad campaign to apologize to the public for this situation. Several weeks later, they announced they would credit customers for work performed during a certain time period against future repair work performed by the same store. This was a token public relations gesture to restore customer trust. Don't think that after all the media attention, these stores are going to stop these practices. They won't. It's like slapping your kids' hands after you've caught them sneaking into the cookie jar. They'll do it again because the penalty is relatively light compared to the payoff. And nine times out of ten, they'll get away with it. In the automotive business it is more like one out of tens of thousands of times. And the cost compared to what they've taken is pocket change.

They also use mileage as a selling tactic. Each chain has their own idea on when you need to replace parts on your car. For example:

## **Keep Your Car On The Road**

**SHOCKS/STRUTS - EVERY 25,000 OR 50,000 MILES,**  
depending on the shop

**TRANSMISSION SERVICE - EVERY 15,000 MILES**

When you read the chapters on struts, shocks and maintenance schedules, you will see what I recommend.

Watch out for the advertised “specials” that most of these stores run. Their only purpose is to lure you into their store. If you need a muffler, you will find that most of these stores will have it on special for \$24.95 including installation. What they neglect to tell you is that in addition, you have to separately buy the tail pipe, hangers and clamps at inflated prices to cover their loss on the muffler.

I personally had that experience with a national chain store. I was driving my old rust bucket when the muffler fell off, without any warning, in front of one of these stores. At this point, I was forced to pull into this shop (the muffler was dragging on the road and I was dressed in a three-piece suit). This store had painted on the wall an ad for a muffler with a lifetime warranty for \$24.95. Two hours later, I was minus \$117.25 for the exhaust work. The complete estimate was for over \$300.00 including struts, shocks, and front-end parts that I didn’t need. What happened to the \$24.95 job? I was paying over \$90.00 for parts to attach the muffler, exclusive of the estimate for work I never needed.

Not long ago I was driving through central Florida on my way to Miami. An ad came on the radio for a Midas Muffler shop. The announcer’s voice was loud and clear while reading the ad copy for a \$24.95 muffler special Midas was offering. Suddenly the announcer’s voice dropped to a whisper and I found that I couldn’t pick up the last part of what was being said. For those of you who have never driven through Florida, I had plenty of time before I reached my destination. It took me two more times of listening to the commercial to figure out what was being whispered so quickly at the end. What I heard was “might require extra parts and labor at a substantial extra cost”. I guess in Florida they have to tell you the fine print, even on radio commercials. Although

## **National Chain Store Auto Repair Centers**

it takes concentrated effort to hear or read any fine print, I guarantee you the effort is always worthwhile.

These stores can be unbelievably forceful and intimidating. The leasing company I worked for would use their clout as high volume customers, sometimes through the store's headquarters, to fight against unnecessary repairs. Sometimes the stores would practically hold cars hostage, insisting on doing work we knew was unnecessary. When that occurred, after much arguing, we would tell the store to do what they needed just to get the car back on the road. Later we would return the bill, not paying for the repairs we were forced to approve. Of course, this combative approach is unpleasant and time consuming. And besides, a tactic like rejecting the bill is simply impossible for the average consumer.

These kind of shops hire professional salespersons to convince you to buy something you don't need. Before you are sold always get a second opinion, preferably from your regular, trusted mechanic. The time you'll lose could save your week's paycheck.

## **SPECIALTY SHOPS**

Transmission shops should only be used when you have a definite problem with your transmission, not for regular servicing. Before taking your car in, always check to see if your problem is covered by the manufacturer warranty. Most of these shops' prices are much lower than a dealer would charge for the same work and back up their work with a good warranty.

Stay away from tune-up shops. As you will see in the next chapter, what we used to call a "tune-up" no longer exists.

Although it is very convenient to use quick oil change service shops, you need to be careful. They work on a very slim profit margin and to reduce overhead, many of them hire non-mechanics and pay them commission to do the job. Often they are kids just out of school with little or no knowledge of auto mechanics beyond their one little job. When something like a loose drain plug or oil filter which they overlook ruins your engine, the time you save is hardly worth it. This is something

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the average person doesn't realize. With the volume of work I oversaw at the leasing company, I really saw the pitfalls the consumer often never realizes.

Like all the other national chain stores, the oil change shops try to sell you unnecessary items and services such as air filters, transmission service, PVC valves, antifreeze flush and differential oil change to beef up their profits. By following your own maintenance schedule, which is covered in the *Service Schedule* chapter, you can resist these impulse sales.

Some fast lube places use quality oil, but the filters and other products are another story. Some of them use inferior parts to replace your good parts. I once had a customer's car towed that quit on the road and would not re-start. What I found out was the air filter that was replaced on the car was so inferior that it disintegrated. It was pulled through the air flow meter, damaging it to the point of replacement at a cost of \$600. As you may have guessed—the customer ended paying for the repair.

In conclusion, when I compare the good news versus the risks of using the national chain stores, I conclude the risks outweigh the good news by a landslide. I recommend using a tire store only for purchasing and mounting tires, a muffler shop for exhaust work, a transmission shop for transmission work once your warranty has expired, and to *stay away from all other auto service chain stores*. Find yourself an honest shop, as covered in Chapter 2, and you'll be way ahead of the game.



# 5

## Service Schedule

Religiously keeping to a regular schedule of maintenance service for your car is the single best investment you can make to prolong its useful life at a relatively low cost. In this chapter we will cover all maintenance services required by most manufacturers.

In order to retain your warranty coverage rights, it is essential to have all services done on or before they are required, either by time or mileage. If you fail to follow the manufacturer's maintenance schedule and experience problems because of it, you could be liable for all future repairs. For example, suppose you forget to have the first service done at the recommended mileage of 7,500 and finally get around to it at 10,000 miles. If the engine goes bad at a later date, the dealer will claim engine failure was due to your maintenance neglect. And guess what? The manufacturer will agree with the dealer and not honor your warranty claim. This leaves you with a \$4,000-\$6,000 bill.

I experienced a real life example of this while employed at the leasing company. Since we purchased large numbers of a few car models, i.e., Ford Taurus, Chevrolet Lumina, etc., we saw mechanical problem trends experienced with certain cars. Over time, we noticed that a particular model would blow the engine at around 10,000 miles due to maintenance neglect by the driver. Guess who paid for the repair on this almost-new car? Yes, the company or corporation that leased that car.

Scheduled maintenance can be performed by your local gas station

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or repair shop. There is no requirement that it be done by your dealer. The important thing is to make sure they use parts the manufacturer originally installed in your car. In other words Ford uses Motocraft products, GM uses Delco, Chrysler uses Mopar and so on. Using brand "X" parts for your oil filters, air filters, or plugs is the number one reason dealers reject doing any work under warranty.

Most manufacturers want you to have your car serviced every 7,500 miles. I am somewhat more conservative on this point and advise you to have your first LOF (lube oil & filter) at 3,000 miles. Since your engine is brand new and needs to be broken in, those first few thousand miles are the hardest on your engine. Therefore, the oil works harder and hotter and begins to break down faster. It becomes very dirty (black), and if you wait until 7,500 miles to change it, some of the residue will remain inside your engine when the oil change is performed. Within a few minutes of adding the new oil and running the engine, that new golden color oil becomes dark brown. The best reason is that, by changing it at 3,000 miles, you prolong the life of the engine. Remember, manufacturers are in the business to sell cars, but their biggest profit comes from selling parts.

Remember, if you choose to have the lube, oil and filter done at 3,000 miles, this goes beyond manufacturer recommendations. Your next scheduled service should still be at 7,500 miles as required by the manufacturer.

At your standard 7,500 mile service you will, under normal circumstances, be meeting your dealer's "trusted" service department for the first time. The first thing they'll show you is an impressive piece of paper they call a Menu. You would think it is printed by the manufacturer. It is designed to suggest what services are *required*. But guess what? It is made by the dealer based on what they figure they can *sell* you. This so-called Menu also varies from dealer to dealer. Most dealers will show you a menu of about 12 services. You assume these are services you need. Beware, most of these services are just visual checks requiring no actual labor. If you choose these services, you will be billed about \$75.00. If customers only bothered to read their owner's manual, they

## Service Schedule

would know what services are actually required. This is why selling that menu is a snap. Dealers are counting on customer ignorance.

What is actually required by manufacturers' standards for your first service is a simple LOF (lube, oil, filter change). Most new cars nowadays don't even require the lube. The second thing (not required by the manufacturer) which should be done is a tire rotation and *that is it*. Including the tire rotation, this should cost a total of about \$27.00. The reason manufacturers don't require tire rotation is because they don't warranty the tires. That's up to the tire manufacturer.

At the 7,500 mile service, don't think you are missing something extra by passing up the dealer's menu and only getting the LOF and the tire rotation. When the mechanic puts the car on the lift he will be looking, at no charge to you, for *the same things the menu calls for and then some*. Why, you might ask, when he is not getting the extra money? Because he works on a commission basis. If he finds a problem you are not aware of, he will bring it to your attention, correct it, and get paid from the manufacturer's warranty. Why would he tell you about it if you are not paying for it anyway? Two reasons—first, to cover his behind with the manufacturer and second, to make a loyal customer out of you.

At about 10,000 or 11,000 miles I would recommend another LOF just to keep the lubrication system as clean as possible. It has been proven that this prolongs the life of the engine and you will have fewer engine problems.

The next service is the 15,000 mile service. For most dealers and mechanics, this is an opportunity to dig into your wallet a little deeper. This menu includes a long list of services. We have come to believe these things need to be done at this point because, at one time it was true. But, like everything else, things change. Dealers and mechanics are reluctant to accept the change and by now you know why—it cuts into their profits. They would rather keep you in the dark than comply with the changes.

Today's cars are of much higher quality than cars built in the 70's. They come equipped with computers and state-of-the-art equipment that eliminates a lot of maintenance and repairs we considered standard.

## Keep Your Car On The Road

For example, in the 70's these services were required by the manufacturer at 15,000 miles:

- \*1-Lube oil and filter
- 2-Engine tune-up
- \*3-Replace air & fuel filter
- 4-Replace PCV valve
- 5-Inspect and adjust timing
- 6-Inspect distributor cap and rotor
- 7-Replace points and condenser (if appl.)
- 8-Check for leaks, brakes and suspension

That was about it. Of course, the dealer would add a few additional items to jack up the price. But in the 90's things are different. Let's go down this same list to see what has been eliminated.

\*Line 1—Oil and filter change—continues to be required. Lubrication—only if applicable.

Line 2—Engine tune-up—no longer necessary at this mileage. Today an engine tune means simply replacing the spark plugs. What used to be called a "tune-up", or adjustment, is now automatically made by the inboard computers.

Most spark plugs now are designed to last over 30,000 miles. In some cases, like the Ford 3.0 liter and the Mazda 3.0 liter, they are designed to last 60,000 miles. These plugs are made with platinum and cost double the average price. You make out in the long run considering the labor savings of two tune-ups over 60,000 miles.

\*Line 3—Air filter—should be checked but usually will not need to be changed until 30,000 miles. Exceptions to this rule of thumb will be in dry, dusty conditions. Under normal driving conditions, the fuel filter will not be changed until 30,000 miles.

Line 4—PCV valve—doesn't have to be replaced. As a matter fact, it is under most manufacturers' warranties for 50,000 miles or five years by federal regulation.

## Service Schedule

Lines 5-6-7- All unnecessary. Timing is adjusted by the inboard computer, distributor cap and rotor are there for eternity, and cars no longer have points and condensers.

\*Line 8—Leak, brake, suspension checks—also remain. I'll explain a little bit more about this later in this chapter.

Why would the dealer want to sell this menu of "required" 15,000 mile, mostly obsolete services? He's not about to update your knowledge, especially when it cuts into his profits. Buying this full menu could cost you an average of \$250.00 to \$300.00. But if you go back and look at your manual, you'll find the only things you need to have done are a LOF, possibly change your air filter and inspect a few things such as those on line 8. These are just visual inspections the mechanic does whether he gets paid for them or not. Again, since the mechanic is on commission, he will look at every corner of that car to see what he can sell you. Does it make sense for you to pay for someone's opportunity to make a sale? One service not in the "owners' manual" which you should have done is a tire rotation. This service should cost you around \$27.00. Now you know that after eliminating the fat, the 15,000 mile service is just like the 7,500.

The 18,500 service is not required. If you are planning to keep your car for a while, I would recommend it. For the \$20.00 you will spend, it is well worth it. All you need at this time is a LOF. By now you should know what LOF stands for.

The next service is at 22,500 miles. Like the previous manufacturer required services, the dealer has their own menu which may look vaguely familiar. It's exactly like the one you saw at 7,500 miles. Ignore it. The only thing you need is a LOF and tire rotation. In a later chapter I'll explain the importance of rotating tires every 7,500 miles. For now I'll just explain the hidden advantage of rotating your tires.

Every time you get a tire rotation, your mechanic also looks at your brakes for you at no charge. Since he'd like to sell you a brake job too, you don't have to worry about him not letting you know if you need one. But if it makes you feel better asking to have them checked out, okay. Just don't ask, "check my brakes out" because you'll be charged for it.

## Keep Your Car On The Road

The way to ask (and not pay for it) is, "While you have the tires off, be sure to look at my brakes for me." The reason you emphasize "while you have the tires off" is this is all the labor the mechanic does to check your brakes out. Remember, he has to take the tires off anyway to rotate them. Why should you pay twice for the same job? By the way, in most cars the only brakes the mechanic will be looking at are the fronts. The rear brakes require more labor to check and you would have to pay extra for this. The rule of thumb is that your front brakes wear out twice as fast as the rear. So if you need front brakes, the mechanic will also check the rear. More on brakes in another chapter.

The 26-27,000 mile service is not required. But, like the one at 18,500 miles, the LOF is worth the investment.

At 30,000 miles your car needs its first major service.

This is the first time you will be spending a bit of money. Up to now the maintenance on this car has cost you a whopping \$94.00, so you shouldn't feel too bad about what you will have to spend. This is the service most shops and mechanics like. In fact, we used to call it "gravy". Some dealers may try to charge you in the neighborhood of \$300 to \$450. Let's go over step-by-step what the important services are at 30,000 miles and learn some new phrases which will help you cut the cost. Now let's see what you should have done at this time:

- 1-Lube, oil and filter change
- 2-Replace spark plugs
- 3-Replace fuel filter
- 4-Replace air filter
- 5-Change automatic transmission fluid
- 6-Drain and refill cooling system
- 7-Check brakes/lines
- 8-Visual inspection
- 9-Rotate Tires

Not everything on this schedule is required by the manufacturer. I'll explain below.



## Service Schedule

Line 1 Lube oil and filter change-still required.

Line 2 Replace spark plugs. Even though replacing spark plugs is the same as a tune-up, never ask for a tune-up because they are priced quite differently. A tune-up on a 4-cylinder engine could cost up to \$85.00, but just replacing spark plugs should only be about \$25.00. At the beginning of this chapter, I said cars nowadays are equipped with inboard computers which take care of all the adjustments a tune-up used to do. Therefore, your mechanic will do the same job whether you call it a 'tune-up' or 'replace spark plugs'. By rephrasing the question, you save yourself about \$60.00.

**NOTE:** Read your manual to find out if your car comes equipped with platinum spark plugs. If it is, disregard line 2 until the 60,000 mile service.

Line 3 and 4 —Air and fuel filter should be replaced.

Line 5—Transmission Service. While many dealers/mechanics will dispute my next recommendation, if you check your manual you will find it to be true. Transmission service, or fluid change, is not required by many manufacturers, but I strongly suggest you have it done. The clutches which are moving inside your transmission cause dirt to form in the fluid. This dirt passes through the filter and starts clogging up the transmission's needle-sized passages. Eventually your transmission starts failing. Of course, this usually happens *after* your warranty has expired. Guess who pays for the problem? Maybe that's why it's not recommended by the manufacturer. Have this service done every 30,000 miles whether the fluid looks good or not, and you'll save yourself a major expense of \$1,000-\$1,500.

Line 6—Drain and refill the cooling system. The word most commonly used for this service is 'flush' the cooling system. The word flush will cost you additional money. It's not necessary to flush a cooling system if you follow the recommended schedule. In other words, if you change the antifreeze or coolant every 30,000 miles, there is no need to have the system flushed. Make sure to address the service request by 'drain and refill the cooling system' and save yourself around \$30.00.

It is very important to know that antifreeze or coolant serves two

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purposes. The first, as the name implies, is to prevent freezing or boiling. The second is to lubricate moving parts such as the water pump. The water pump has a bearing or two and rubber seals that plain water won't lubricate. And, as you may have noticed, water and metal/steel are enemies. When plain water and steel are in contact, rust is created. The bearings and the seals start to deteriorate and the water pump fails.

The thermostat regulates water/antifreeze flow throughout the engine and is another part needing constant lubrication. It opens the flow when the engine is warm and closes the flow when the engine is cold. If this part remains either open or closed because of rust or an unlubricated system, you could be looking at an engine job.

The reason I'm emphasizing the need for antifreeze or coolant is because in mild weather states, where it doesn't often get to the freezing point, car owners who don't know any better sometimes just drain the antifreeze and replace it with plain water (my father was one of these geniuses). They are blissfully unaware of the damage they are silently causing.

Line 7—Check brakes. This will be done when the mechanic rotates the tires. Do not ask for this separately.

Line 8—Visual inspection. This will automatically be done while mechanic is doing other things. Remember, the mechanic is on commission.

Line 9—Rotate tires-definitely.

That's all for the 30,000 mile service. Granted, it's a major service and one that is very important. But if you ignore the dealer's Menu and only request what should be done, the cost of this service can be reduced by more than half and your car will be in excellent working condition. By following the recommended schedule instead of the dealer's menu, this service should cost you about \$175 for a 4-cylinder car with regular spark plugs. That's about a \$125 saving from the low estimate dealers charge with their so-called "menu".

The next recommended service which is not required, is only a LOF at about 33,500\* miles. The 37,500\* mile service is the same we did at 7,500—LOF and a tire rotation.

## Service Schedule

**NOTE:** If you need new tires, try to get them at a time when you are due for a service requiring a tire rotation. This way you can maintain the mileage schedule for tire rotations.

The following services continue as follows:

41,000 = LOF\*

45,000 = LOF and tire rotation

48,500 = LOF\*

52,500 = LOF and tire rotation

56,000 = LOF\*

\* = not required by manufacturer and mileage is approximate.

Now we come to another big one, the 60,000 mile service. This service is very important. If you neglect to have some key repairs at this time, you can have a blown engine in the not too distant future. Basically the service is the same as the 30,000 mile service but with a few extras.

The first extra item is the timing belt. If your car has a timing belt (not a chain) and many manufacturers use them, it should be replaced at this time and every additional 60,000 miles. This is also the right time to replace all driving belts, i.e., alternator, air conditioning, and power steering belts. The reason for this (whether they need replacement or not), is that, in most cases, there is no additional labor charge. On most cars, all belts have to be removed to replace the timing belt. If you are paying the labor for changing the timing belt, there will be no additional labor charge to replace these other belts as well. All hoses should be carefully inspected at this time. If one shows any deterioration, replace them all.

One thing to remember is, you have to spell out to the mechanic/dealer/shop exactly what you want them to do. Remember the phrase we used to avoid a separate bill for a brake inspection, "while you have the tires off look at my brakes"? Well, the same thing goes for the belts, "while you have all the belts off, install new ones". Make it clear up front that you don't expect to see any additional labor charge on your bill when you pick up the car by saying, "since you have to take

## Keep Your Car On The Road

all the belts off for the timing belt, there won't be any additional labor charge to change the others, right?", and you will have your answer at that point. I have argued this point several times and found that it is easier to spell it out at the beginning than to wait until the bill arrives. It very hard to get a charge deleted from a completed bill.

At 60,000 miles your service schedule starts all over again. In other words, your next service is due at around 63-64,000 miles and this service is the same as the 3,000 mile service; the following one would be around 66-68,000 miles and is the same as the 7,500 mile service and so on. A good rule of thumb is always allow 3,000 to 4,000 mile intervals between servicing and to rotate the tires every other oil change.

**Quick Chart of this chapter**

Miles x 1,000	3	7.5	11	15	18	22	26	30
Months	3	6	9	12	15	18	21	24
Lube,oil & filter	R	R	R	R	R	R	R	R
Spark plugs								R*
Air filter				I				R
Fuel filter								R
Complete Visual inspection	I	I	I	I	I	I	I	I
Transmission oil								R
Brakes				I		I		I
Engine coolant								R
Tire rotation		X		X		X		X
Timing belt								
Drive belts								I

R = Replace, I = Inspect, X = Service at this time

\* Cars equipped with regular sparks plugs. Check owners manual.

# 6

## Warranties

The words “warranty work” are definitely not music to either a mechanic’s or a dealer’s ears. When I was working for dealerships, I hated afternoons. That was when warranty work would be handed out. If I had not sold enough work in the morning to “paying” customers, in the afternoons I was stuck with warranty work.

The problem with warranty work, from a mechanic’s perspective, is that it pays the mechanic about half of what he could make doing the same job on a non-warranty basis.

The repair time is calculated by the customer—the manufacturer. Mechanics concede that to a certain extent, this is fair. The problem is that their calculations don’t take into consideration everything included in completing the job and leave no room for error. For example, if the manufacturer pays one hour to do a job, this includes diagnosis, getting the part from the parts department, and replacing the part. You can bet the farm that it will take that hour plus a little more depending, on how quickly and accurately the problem is diagnosed, how far the parts department is from the service bay, how many other mechanics are waiting in line to get their parts and how quickly that part can be replaced on the car. Let’s look a little closer at the problem through some real experiences I had over the years.

First let’s see what it takes to diagnose a problem. Sometimes a car can have a problem as simple as a broken radiator hose. When the

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mechanic opens the hood, he sees it right away. No problem. Most of the time it's not that easy. Once I was working on a car in my bay that at odd times would shut off without warning and then restart right away. I spent days looking and checking everything I could and came up with nothing. Finally, I was so frustrated while working on the car for the umpteenth time, the motor running, I hit the trunk with my fist (not hard enough to make a dent, I knew better) and the car shut off. Eureka! What I finally stumbled on was a defective trunk alarm switch that kept signaling the car's computer that someone was trying to break in. As a result of that signal, the engine would periodically shut everything down.

Unfortunately, according to the book, that should have been a simple job and the manufacturer paid me for a quarter hour, or about 15 minutes. The manufacturer has a book he goes by and that's it. If the job had not been done under warranty, the customer and I would have been able to arrive at a fair settlement.

The other part of the equation which may not be fairly considered is the detail of obtaining parts. Well, here we go with a few more personal experiences. The last dealer I worked for had his parts department three blocks away from the service bays. The dealer had several golf carts for us to use to get our parts. Mind you, we had to drive these carts on city streets but somehow we never got stopped by the police for going too slowly. The first dealership I ever worked for sold eight different lines of cars under one roof. The service department was bigger than a football field and the parts department was located in front of the service department. With the ten miles I walked or ran everyday going back and forth for parts, I probably was in peak physical condition, but I was young then.

Dealers don't like taking warranty work any more than the mechanics like doing it. The reason in two words: CLAIM REJECTED. There are many reasons why a claim is rejected by the manufacturer. For example, the same work may have been done previously but the problem reappeared. Perhaps the first time the manufacturer paid for the warranty the mechanic guessed at the problem and didn't completely fix it. Some-



## Warranties

times the claim is rejected for something as simple as incorrectly completing paper work. Any of these reasons and more costs a dealer a great deal in both time and money.

These are some of the reasons why warranty work takes a back seat at almost every dealer. Don't be surprised if your car sits at a dealer for a few days for something simple to be worked on under warranty. Later in this chapter I'll give you some ways to avoid this. Let's look at manufacturer warranties first.

Have you noticed that since 1990 manufacturers have been changing the warranties on their cars? General Motors started the trend in 1990 by changing their six year/60,000 mile warranty to a three year/50,000 mile warranty. GM sugar-coated this bitter pill by making the "new and improved" 3/50 warranty bumper to bumper. This meant that after the basic 12,000 mile/12 month warranty, GM would charge you \$100.00 deductible to cover the same work as the basic 12/12 warranty. Sounds good, but only if you are planning to keep that car for three years or 50,000 miles and then replace it. Today, most people keep their cars for well over 60,000 miles.

In 1991 Ford Motor Company followed suit. They went from the same 6/60 powertrain warranty to a four year/50,000 miles major components warranty. They also reduced the deductible to \$50.00. But this is not the same as GM's. GM went bumper to bumper while Ford didn't. Ford kept their 12/12 warranty intact but reduced the warranty on major components to 4/50. In other words, GM cut their warranties by three years and 10,000 miles but gave bumper to bumper coverage for the warranty period. Ford cut their powertrain warranty by two years and 10,000 miles and didn't add bumper to bumper coverage. Chrysler has the best major components warranty available on the American lines, their famous 7/70 warranty. In easy terms, it's a basic 12 month/12,000 mile warranty with a seven year/70,000 mile powertrain warranty.

For 1992 two American manufacturers, Ford and GM, got out their scissors again and cut their warranties a bit more. Now they offer a three year/36,000 mile bumper to bumper warranty. Chrysler kept their 7/70 powertrain with the 12/12 basic warranty but is easing into the trend of

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their American competitors by offering the new car owner the choice of a 3/36 bumper to bumper warranty as well.

Now let's take a few minutes to understand the warranties. The average person drives 15,000 miles in one year. Keep in mind that's an average person living in the suburbs and commuting into town to work. Someone like a sales representative or delivery person could average 15,000 miles in four months. Now let's go back to the average driver. In approximately 2 years, that car will be out of warranty. So, even if the manufacturer offered a 10-12 year warranty but covered only 36,000 miles, the car would still be out of warranty in 2 years.

When you get a three year/36,000 mile (whichever comes first) 100% warranty, except for wear items, it sounds good. Let's assume the alternator goes bad at 35,000 miles. Since it is covered under the warranty, you save about \$300.00. Let's also assume your engine went bad at 37,000 miles. Since you are no longer under warranty at this point, this little job could cost you \$5,000. Which would you rather pay for? Well, that's the reason why manufacturers went to the 3/36 warranty. It's cost effective for them and they've packaged it in such a way that the average consumer doesn't realize the potential cost.

Most consumers don't analyze this, and that's what manufacturers are counting on. Most people feel like their warranty has increased instead of decreased, from 12 months/12,000 miles to 36 months/36,000 miles. In reality it has decreased just when it really counts.

Another way to look at the 3/36 warranty is—suppose your horn goes bad. To get the job done under warranty, “free of charge”, you are forced to take your car to the dealer. That usually means it has to be done between Monday and Friday between 8am and 5pm. If you are a working person, you lose time from work to take the car into the dealer, and usually the dealer keeps the car for a whole day, if you are lucky. If you don't have a ride back and forth you are forced to rent a car. To make this easy to understand, look at the table on the next page, on the cost of that repair from both yours and the manufacturer's perspective.

What looks like a free repair actually ends up costing you more than what it costs the manufacturer. For example, if you have the repair done

## Warranties

by your local mechanic, the job could cost about \$35.00, at your convenience, without bothering a friend or renting a car.

Manufacturer cost	Driver cost
1. \$25.00 Parts & Labor	1. Time off from work 2. Inconvenience a friend 3. Rent a car \$40.00
Total= \$25.00	Two of the above

In most cases, it is more economical to get the job done and pay for it rather than using the warranty. In most major cities, it is not easy to get a car into the dealer for repairs, especially if it is a warranty repair. So, if we continue with the horn repair example, it could actually take 2-3 days, or even up to a week, to get it fixed under warranty in a major city. Remember, everyone at the dealership avoids warranty repairs like the plague, so no one is in a big hurry to open your hood. This means that if you rented a car while yours is sitting in the shop, this “free” repair can cost you as much as \$280.00 while your car sits for a week versus the \$35.00 you might have paid your neighborhood mechanic.

As mentioned earlier, mechanics and dealers are not too thrilled with the idea of doing warranty work, so they will look for any excuse to make you pay for a repair. It is important to know that your owner’s manual has a telephone number to call when you are in a disagreement with the dealer over a warranty repair. Manufacturers are trying their best to make a loyal customer out of you. They realize that word of mouth, especially negative, sinks ships. It is not like the old days when your complaints would go straight into the garbage. They now listen very carefully and will get involved on your behalf. The dealer must prove to the manufacturer that whatever they are rejecting to do under

## Keep Your Car On The Road

warranty is due some negligence by the owner. Reasons often cited include lack of basic maintenance service or car abuse by the owner, causing the part(s) to fail.

After the warranty expires, most manufacturers will listen and try to help you with the cost of a repair if they feel you have faithfully serviced your car and the repair was unusual. Therefore, if you feel you have a good case, call them. You have nothing to lose.

Something very important to look at when shopping for a new car is the powertrain warranty (PTW). A powertrain warranty and one which covers major components is the same thing. This type of warranty covers the big ticket items that can break down on your car including your engine, transmission, and differential. Most people overlook reviewing their powertrain coverage because the 3/36 bumper to bumper warranty sounds so good. What you really need to see is that the 3/36 warranty is not what appears to be; it's all sizzle and no steak. What you need to look for is a warranty on the big ticket items. By and large they don't start breaking down until after that 3/36 warranty expires.

Another choice when buying a new car is whether to purchase an extended warranty. This warranty is offered by many insurance companies. When your manufacturer's warranty expires, the extended warranty goes into effect and covers mostly powertrain items. Some policies have much broader coverage. If you are interested in this option, ask if this is the only one available and read it carefully. One of the details to carefully consider is whether the car can only be serviced at this dealership. Ask how your coverage would work if you move or need to use it while you are out of town. If you are going to purchase this coverage, it must be bought when you buy the car. It ranges from a few hundred dollars to about \$1,500.

Extended warranties are very important to buy if the car you purchase only carries a 3/36 warranty. My recommendation is to buy one that covers your car for six years or 100,000 miles. Like other insurance, this warranty protects you from high cost repairs. Just as you would under your manufacturer's warranty, you must keep your car regularly serviced, as outlined in the owner's manual, to qualify for extended warranty

## Warranties

reimbursement for covered repairs. In other words, if your engine goes bad and you haven't changed the oil in 10,000 miles, the warranty claim will be rejected.

There is another warranty beyond the 3/36 warranty that most consumers are not aware of. This is the 5/50 emission controls warranty. This warranty came about with the help of "Uncle Sam". Dealers are required to honor the warranty's coverage by federal law. Anything that has to do with emissions should be covered under this. Something as simple as a \$4.50 PCV valve is covered under this warranty. Write to your manufacturer to get a list of the parts covered under this warranty. This list varies by manufacturer, even though it is regulated by the government.

The following is a list of warranties offered by manufacturers. My recommendation is to examine them as carefully as any other aspect of the vehicle before purchasing your new car. There are still many manufacturers that stand behind their products through a good warranty. Perhaps by buying only from those manufacturers providing a good warranty, it might send a message to all those others whose warranties are all smoke and mirrors.

### 1993 MANUFACTURERS' WARRANTIES

Make/Model	Basic Years/miles	Extended/Ptw Years/miles	Transferable
Acura	4/50	none	Yes/no cost
Alfa Romeo	3/36	none	Yes/no cost
Audi	3/50	none	Yes/no cost
BMW	4/50	none	Yes/no cost
Buick	3/36	none	Yes/no cost
Cadillac	4/50	none	Yes/no cost
(exc. Allante)			
Cadillac Allante	4/50	7/100	Yes/no cost
Chevrolet	3/36	none	Yes/no cost
Chrysler			

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Make/Model	Basic Years/miles	Extended/Ptw Years/miles	Transferable
Le Baron,	1/12	7/70	Yes/ \$150
Town & Country			
Chrysler	3/36	none	Yes/ \$150
(alternate)			
Chrysler '92			
Imperial	5/50	7/70	Yes/ \$450
New Yorker 5 av			
Daihatsu '92	3/36	none	Yes/no cost
Dodge	1/12	7/70	Yes/ \$150
Dodge	3/36	none	Yes/ \$150
(alternate)			
* Dodge Colt	3/36	5/60	Yes/ \$150
Stealth			
Eagle	1/12	7/70	Yes/ \$150
Talon			
Eagle	3/36	none	Yes/ \$150
(alternate)			
* Eagle Summit	3/36	5/60	Yes/no cost
* Eagle Summit	3/36	5/60	Yes/ \$150
Wagon			
Ford	3/36	none	Yes/no cost
Geo	3/36	none	Yes/no cost
Honda	3/36	none	Yes/no cost
Hyundai	3/36	5/60	Yes/no cost
Infiniti	4/60	6/70	Yes/no cost
Isuzu	3/50	5/60	Yes/no cost
Jaguar	4/50	none	Yes/no cost
Jeep	1/12	7/70	Yes/ \$150
Jeep	3/36	none	Yes/ \$150
(alternate)			
Lexus	4/50	6/70	Yes/no cost
Lincoln	4/50	none	Yes/no cost



## Warranties

Make/Model	Basic Years/miles	Extended/Ptw Years/miles	Transferable
Mazda	3/50	none	Yes/no cost
Mercedes Benz	4/50	none	Yes/no cost
Mercury	3/36	none	Yes/no cost
Mitsubishi	3/36	5/60	Yes/no cost
Nissan	3/36	5/60	Yes/no cost
Oldsmobile	3/36	none	Yes/no cost
Plymouth	1/12	7/70	Yes/ \$150
Plymouth (alternate)	3/36	none	Yes/ \$150
* Plymouth Colt	3/36	5/60	Yes/ \$150
Pontiac	3/36	none	Yes/no cost
Porsche	2/unltd	none	Yes/no cost
Saab	3/40	6/80	Yes/no cost
Saturn	3/36	none	Yes/no cost
Subaru	3/36	5/60	Yes/no cost
Suzuki	3/36	none	Yes/no cost
Toyota	3/36	5/60	Yes/no cost
Volkswagen	2/24	5/50	Yes/no cost
Volvo	3/50	none	Yes/no cost

\*= These cars have choice of warranty shown or 1/12 basic and 7/70 extended/ptw. as all Chrysler product do.

# 7

## The Powertrain

What is considered the powertrain, or “major components” for warranty purposes has changed over the last several years. It is hard to define but important to understand in order to maximize your warranty rights. A few years ago the powertrain meant the engine, transmission and differential. Today however, as far as your warranty is concerned, it includes much more.

Just as all coins have two sides, so do changes to warranties. The side with broader coverage is obviously good for the consumer, but on the other side, the consumer is left in the dark regarding additional items now covered under the warranty. It would take a book many times longer than this to explain the additional items covered under the different warranties for each make and model.

Each manufacturer has their own version of what's covered and, to make matters worse, it varies by model within the manufacturer's line. For example, some manufacturers cover front wheel bearings, others don't.

Follow this advice to find out if a part is covered under your car's warranty. If your dealer calls you with an estimate for front wheel bearings, for example, say you will call back in a few minutes. Then call the manufacturer's customer service department (number in your owner's manual) and ask if the bearing is covered under your model's powertrain warranty. The manufacturer has no reason to give anything but a straight answer to the question. The dealer, on the other hand, has

## **The Powertrain**

every motivation to tell you it's not covered. This may take a few minutes of your time but can save you big dollars. In this example alone, the call could save you from \$100 to \$150. So while your car is covered under the powertrain warranty, call the manufacturer to exercise your rights.

The remainder of this chapter will cover the major parts of the powertrain and their service requirements. These are the most expensive parts on your car. To give you some idea of how much we are talking about, a four-cylinder engine could cost as much as \$6,500 and the transmission and differential each could run from \$4,000 to \$5,000. This is why it is so important to keep the service up to date on these major parts. If you follow the schedule outlined in Chapter 5, I can guarantee you will have a trouble-free powertrain system.

## **ENGINE**

The most important engine service is to regularly change the oil and filter. (See Chapter 5 for the recommended schedule.) The second most important item is the timing belt. Most new cars come equipped with a timing belt instead of a timing chain. In most cars, this belt cannot be seen when you open the hood. The belt is covered to protect it from the environment. It's essential to replace this belt every 60,000 miles. If you neglect this, the belt will suddenly break without any warning. Then, your car will stop running and will not restart. In some cases, severe damage to the engine occurs. If this happens, the repair could cost you at least \$5,000. Of course, most of the time this occurs after the warranty has expired. Guess who foots the bill?

Your regular drive belts are what you normally see after opening hood. Today, most cars have a belt called the serpentine belt. This is a thin, wide belt that has a tendency to crack. It is normal for them to crack and is not considered to be a problem which should cause replacement. They are designed to last beyond 60,000 miles. The reason they crack is because the belt is made out of steel and covered with a rubber casing. When the steel gets hot, it cracks the rubber. Unless you know better, when you see this cracked belt it is easy for the dealer to sell you a replacement. The mechanic shows you the cracks and tells you it is ready

## **Keep Your Car On The Road**

to break. You see the cracks, agree with his suggestion, and there goes another \$60.00. Dealers have been warned by manufacturers to stop this practice, but they won't listen.

When I was working for the leasing company I would sometimes get calls from dealers trying to sell belts because of cracking. I referred them to the manufacturer's bulletin where they are told it is NORMAL for this belt to crack. Suddenly their memory returned. Unfortunately the drivers who we tried to help argued with us because they were convinced they had a problem. Until the same dealer would tell them we were right (you can imagine this didn't happen too often) they insisted they needed this part. Unless they wanted to pay for the replacement of the belt themselves, we would not authorize it. We always told those drivers choosing to pay out of pocket to check the belt in a month to see the new belt cracked as the old one. By the same token, if the mechanic shows you a piece of the belt is missing, it is time to replace it.

When you follow the service schedule in Chapter 5, you'll have the belts replaced (whether they appear to need it or not), at the 60,000 mile service. Usually there is no additional labor charge when you have the timing belt replaced. Make sure the mechanic is aware you know there should not be an additional labor charge or you will see a charge on the bill. Each belt costs about \$25.00.

The hoses should also be checked at 60,000 miles. Replace them all if one shows any sign of deterioration.

Another part you should check periodically is the air filter. Normally the air filter should be replaced at 30,000 miles. Depending on where you live, this filter may be replaced as often as every 15,000 miles. A clogged air filter can cost you gas mileage and may cause damage to the fuel injection system.

As I said before, get the original brand name filter or other parts. Don't waste your money buying off brand replacement filters usually pushed by fast lube places. These filters can void your warranty on fuel related problems.

Replace your antifreeze every 30,000 miles as well. This will prolong the life of all parts coming in contact with it.

### **MANUAL TRANSMISSION**

Manual transmissions are usually trouble-free. No special service is required. My only recommendation is to change the gear oil every 60,000 miles just in case any moisture seeps in. Usually moisture gets in through the breather hole when the car goes through a deep puddle of water. Otherwise, unless you forget to step on the clutch and just ram it into gear, the manual transmission is a trouble free part.

### **CLUTCH**

A separate clutch assembly is incorporated into the manual transmission. The clutch is a wear item like brakes and tires. To get the most life out of it, treat it with care. In other words, don't hold the clutch pedal half way down while taking off on high RPM. When I was younger, I burned out a clutch on my brand new car in less than 24 hours of owning it. Why do some people drive like this? I can tell you why I did—to show off by taking off like a bullet and “lay some rubber”. This continued to be exciting (and attract the girls, I might add) until my father took the car away because I couldn't afford the clutch job. Later I learned that tires were expensive too. Both your clutch and pocketbook will appreciate your easing up on the takeoff.

A clutch assembly consists of three parts: the pressure plate, clutch disc and throw out bearing. If your car is due for a clutch job all three parts should be replaced. I have seen some mechanics only replace the disc, the most common part to wear out. That's a big mistake because by this time the pressure plate has lost its pressure and will damage the new disc within a few hundred miles, requiring you to have the job done over again. The most expensive part of the job is the labor. The combined cost of all three parts is usually much less than the labor alone.

How can you tell if the clutch is worn out? Sometimes you can feel it through the pedal because it harder to depress. More often you will hear the engine roar on a faster RPM than the car is actually moving. It's like having the car in neutral and stepping on the gas. With a bad clutch the car moves but seems to be in neutral and fourth gear at the same time.

## **Keep Your Car On The Road**

You can follow this test to see how good a clutch is, especially if you are buying a used car. Don't do this in front of the seller and only when you really think it is necessary, because this can burn out the clutch. Put the emergency brake on and put the car in third gear with the clutch on. Step on the accelerator, bringing the RPM to about 2,500. Slowly let the clutch pedal up, raising the RPM higher to avoid stalling. If the car cannot take it and stalls, the clutch is good. If you can compensate by increasing the RPM to avoid stalling, the clutch is bad.

## **AUTOMATIC TRANSMISSION**

According to manufacturers' standards and under normal conditions, no service is required today on most automatic transmissions. But under extreme conditions, you should have it serviced. This includes extreme weather conditions such as exceedingly cold or hot temperatures, towing a trailer or using the car as a work horse to haul excessive weight over an extended period. According to the manufacturer's definition, most of us fall into the category of normal conditions and would rarely require a service. There are different opinions concerning this issue, but to find out what your manufacturer recommends refer to your owner's manual.

Automatic transmissions have not changed much over the years. Through my long experience working on cars, I found if you replace the fluid and filter on your transmission every 30,000 miles, you will have a trouble-free transmission for as long as you own your car. I strongly recommend servicing this every 30,000 miles because the fluid gets dirty from parts within the transmission such as clutches and bands. Sometimes this dirt passes through the filter and plugs the needle-size hole the fluid travels through, which eventually burns out the clutches inside.

Unfortunately in the case of automatic transmissions, by following the manufacturer's standards, you probably won't have any problems until your car is out of warranty, leaving you with an expensive bill. Follow my servicing schedule and you'll never have a problem.

By the same token, don't believe those fast lube oil changers who tell



## **The Powertrain**

you to have the fluid and filter replaced every 15,000 miles. They're trying to beef up their profit margin at your expense.

I recently bought a book from a well-known consumer awareness group written by a non-mechanic who used antiquated information and tried to pass it off as new. The book recommends you have your transmission serviced under extreme conditions every 6,000 miles, and under normal conditions every 12,000 miles. I was shocked this well-known and highly respected company had not checked the accuracy of the information before they published it. Imagine having to service the transmission every 6-12,000 miles at \$50.00 a shot. By the time you reach 100,000 miles, you would have spent \$400 to \$800, when a total of \$150 would have done the job just fine.

## **DIFFERENTIAL**

On most front-wheel drive cars, the differential and transmission are incorporated within the same housing and use the same oil. When you change transmission fluid, you take care of the differential as well.

On rear wheel drive vehicles, the differential is in the rear axle and almost always separated from the transmission. In this case it should be serviced every 60,000 miles, by only changing the oil—no filters are involved.

Well, that covers the powertrain or major components. In conclusion, by following the simple schedule of relatively inexpensive services outlined above (and covered in more depth in Chapter 5), you can avoid a fortune's worth of repairs on your car's major components.

## 8

# Exhaust and Electrical System

Many otherwise intelligent people don't take their exhaust systems seriously. We've all seen or heard them at one time or another, mufflers hanging by a thread and engines roaring. What they fail to realize is their failure to repair a "minor" muffler problem could be a silent killer.

There are cases where highly disturbed people have deliberately sat in a closed garage with their car running and were later found dead. Unfortunately, this can happen accidentally to those of us looking forward to a long life, and we may never know what hit us. I heard about a woman who was driving on the Florida Turnpike and fell asleep at the wheel. Her car suddenly left the highway and came to rest by an orange grove. She was pronounced dead at the scene. Fortunately no other cars were involved in this accident. There was no explanation for what had happened, until the autopsy revealed she died of carbon monoxide poisoning. Quite simply, the muffler had a hole in it and the fumes entered the car's interior. If she had pulled to the side of the road when she felt sleepy and opened her window, she might be with us today. She never knew what hit her.

I hope you think about this story the next time you hear an odd noise coming from your muffler. There may be more coming from the exhaust system than just an annoying sound. The life you save could be your

## **Exhaust and Electrical System**

own ...or your child's. By the way, your exhaust system is not the only way stray fumes can enter your car. Your exhaust system may be in perfectly good shape but if your trunk seal is broken, exhaust fumes can leak into the trunk, seep through the rear seats and fill the car's interior with carbon monoxide. So periodically check your trunk seal, especially if you have a tendency to use your car as a pick-up truck.

Now that you've had a little consciousness-raising concerning your muffler, let's review what to do when you need exhaust work.

### **EXHAUST SYSTEM**

When your car needs exhaust work and is out of warranty, your best bet is to use a national muffler chain like Midas, Meineke or Speedy. These shops specialize in exhaust work and will usually have the part you need in stock. The main advantages to using these stores versus a dealer is price and, as covered in Chapter 4 on National Chain Stores, their product warranty. They normally charge about 25% of what a dealer would for the same service. In most cases you are in and out in a few hours, while the dealer could delay you a day or more because the part isn't in stock.

This reminds me of another story you may find amusing. I used to work for a dealer who, when a customer came in for exhaust work, would turn around and have one of the porters drive the car to a local muffler shop. The muffler shop would work on the customer's car and give the dealer a hefty discount because of volume of work he sent. The dealer then turned around and charged the customer manufacturer's list price on the job. The dealer made a handsome profit on the work the muffler shop performed. So, unless your car is covered under the basic warranty, avoid the middle man, save time and money by taking your car to the muffler shop.

### **ELECTRICAL SYSTEM**

The electrical system, including the battery, starter, and alternator, is what keeps everything running. These parts are interconnected, much like the bones in your body. Without the battery, you cannot start the

## Keep Your Car On The Road

car; without the alternator, the battery will not have a charge to release to the starter, which is required to turn the engine on—the alternator takes over and the engine is running. The alternator is the key for both getting the engine and all electrical parts going, as well as recharging the battery for the next time you need to start your car. I hope you get the idea that all three parts of the system are necessary for getting and keeping your car moving.

You know if the alternator stops charging because the gauge or light (whichever your car is equipped with) lets you know if you need to get the car to a shop at once. If this happens, shut off all electrical accessories like the radio, air conditioner, heater, etc. Without the alternator managing the electrical flow, the battery takes over to keep your car running. You want to conserve as much energy as possible, although within a few hours the battery will run out of stored electricity. At that time your car will shut down, leaving you stranded. Jump starting your car won't help, because although the car starts, as soon as the jumper cables are removed the car dies again.

There is nothing to service on the alternator, but you should keep an eye on the battery. Like everything else in life, batteries die out. It is important you know when the battery is ready to expire. Nine times out of ten the battery will warn you when it is time to be replaced. The warning is very obvious—the engine turns over slowly. If your car is a couple of years old and you start it and it feels like it's turning over slower than usual, this is your warning sign. Take it to the shop, replace the battery and ask to have your charging system checked.

When possible, have the battery water level checked when you have your oil changed. (Some batteries are sealed and impossible to check.) If you need to add water, use distilled water. Chlorine destroys the battery's cells. Make sure the terminals are clean at all times. This helps prolong the battery's life. A few drops of cola or baking soda mix with water can keep the terminals clean.

If you can, avoid having your car jump-started. Today's cars are controlled by many small, sensitive computers that are expensive to replace. If your battery is dead, have it towed to the shop and checked

## Exhaust and Electrical System

out by the mechanic. If he doesn't find something obvious, replace the battery. If it is something as simple as the lights left on, *tow it in*, have the mechanic disconnect the battery, and *then charge it*. The reason I advise against emergency jump-starts is I have seen too many simple mistakes made by good samaritans. Their good intentions to help can end up costing several hundred to thousands of dollars if a computer or two is accidentally burned out.

What do I mean by a simple mistake? In one second, you can burn out the alternator if someone hooks up the jumper cables incorrectly. The sparks lets them know something is wrong, but by this time you are probably looking at an alternator for \$300 to \$400. If a stranger is helping you out, he may look like he knows what he's doing but really be a graduate of the Gomer Pyle School of Mechanics. This guy may actually think sparks coming from the battery is normal and end up burning a path from the alternator to the computer to the wiring harness. You should know if this tragedy occurs your warranty would not cover replacing these parts and your insurance company would consider this negligence. You'd be on the hook for several thousand dollars.

## STARTER

The starter is practically a trouble-free part because of the limited time it is in use. It's sort of like a cat. It has exactly one job—to start your car—then it sleeps the rest of the time. One way people damage the starter is to hold it in the start position after the engine starts running. This makes the starter spin faster than it should, damaging the bearing brushes inside of it. Low battery power also damages the starter. It's like trying to push a car by yourself. By the time you move the car, you need a stretcher. A costly mistake which is easy to make, is turning the key to start the engine when the engine is already running. What you do is destroy the gears of both the starter and flywheel, both of which are needed to mesh together to start the car.

In summation, pay attention to what your car tells you. If the exhaust system is noisier than usual, the engine is slow to turn over or the alternator light flashes, your exhaust or electrical systems need imme-

## **Keep Your Car On The Road**

diate attention. Don't wait to have them fixed, or you may find St. Peter sizing you up for a halo.



# 9

## Brakes

In this chapter we cover the most important system for safe operation of your vehicle—the brakes.

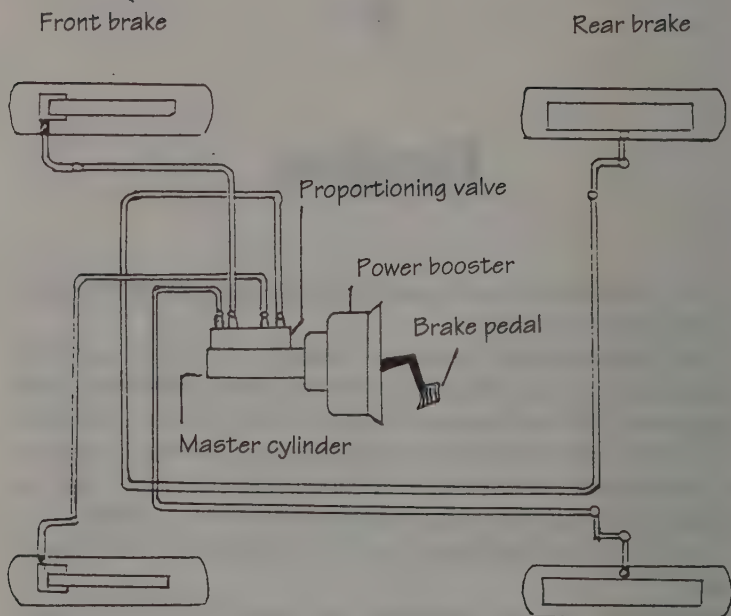
Like everything else, brakes have improved over the years. Early braking systems were similar to what you saw on *The Flintstones*, where they put their feet on the ground to stop their cars. They then evolved to cable/rod operated systems and, with further improvements, to hydraulic systems with power boosters. The most up-to-date technology has equipped some cars with computerized antilock braking systems.

Today's basic braking system looks like the drawing on the following page.

When you push the brake pedal, you force brake fluid to travel throughout the system. The power booster, which creates the system called power brakes, works with the vacuum from the engine to assist when you step on the brake pedal. Not long ago, you had to apply heavy force to the pedal to stop the car. Today, with the help of the booster, heavy force is no longer needed. With your foot and the help of the power booster, fluid is forced out of the master cylinder through the brake lines to a distribution valve.

This valve distributes an exact amount of fluid to each wheel (to avoid pulling) and, in turn, makes the calipers and cylinders expand within the wheel. The pads are pressed against the rotors and the shoes into the drums causing the wheels to stop turning.

## Keep Your Car On The Road



**NOTE:** With anti-lock brakes computer and sensors are incorporated into braking system.

## Brakes

With the antilock brake system, the process is the same with the addition of a computer and sensors. The computer and sensors eliminates the problem of the wheel or wheels locking up, even if you push the pedal as hard as you can. This prevents the car from sliding, which is dangerous on a wet or icy pavement.

Brakes are the easiest part to sell a customer whether they are needed or not. What the shop relies on is the "Danger Factor". The danger factor usually makes people agree to have a brake job when the shop or mechanic says you either are due for one or your brakes are worn out. He uses this opportunity to sell you when performing routine maintenance, i.e., oil change, tire rotation, etc. I've seen mechanics sell a brake job when the brakes being replaced had more than 50% left on them. How can they get away with this? Because the mechanic knows the danger factor makes it easy to dig deeper into your pocket.

I can honestly tell you that 90% of the time, when you hear you are due for brakes or find the brakes are worn out when going in for routine maintenance, you have some time to get a second opinion and shop around for the best value before getting the job done.

Instead of relying on your mechanic or dealer who "only has your best interests at heart", let's see how you to verify their suggestion. If the mechanic advises that you need brakes, the first question you should ask is "how many thirtyseconds do the pads or shoes have left?" "Thirtyseconds" refers to the way brake pads, shoes and tires are measured, i.e.,  $\frac{1}{32}$ nd of an inch. The safe minimum should be no less than  $\frac{2}{32}$ ". When brakes pads are brand new they are about  $\frac{12}{32}$ ". If you have  $\frac{2}{32}$ " or less left, replace the brakes pads as soon as possible. If you are contemplating having the job done there, make sure to request the old parts. Asking how much you have left on the brake pads and requesting the old parts lets the mechanic know you know what you are talking about. Asking for the old parts also insures an honest answer to your question concerning how many thirtyseconds are left. Remember, mechanics don't like being sued for unnecessary repairs and, by having the evidence in your possession, the mechanic doesn't have a leg to stand on in court.

## Keep Your Car On The Road

Does the vehicle give us warning when the brake pads are worn out? One indicator most manufacturers provide is a warning device, built into the brakes pads, that emits a screeching sound when your brakes pads need replacing. This device could actually drive you crazy because of the scraping, metallic noise it makes. It comes from the front wheels and is continuous while you are driving. The noise usually goes away temporarily when the brakes are applied. There is a 99% chance the front brakes pads will wear out much faster than the rear shoes, which is why manufacturers only provide this device on the front brakes pads.

Since this device is an early warning signal, it gives you the luxury of some time to make an appointment for your brake job (and shop around). But you only have a few hundred miles, so don't get too comfortable. It is very important to have the work done even if this annoying noise stops. Your brake problem has not gone away, it only means the warning device has worn out. If this happens, your brake pads may have worn out as well, turning a routine brake pad replacement into a big expensive job. Do not delay at this point.

Unfortunately, the only way to know if you need brakes on cars not equipped with the warning device is when at least one of the four brake pads wears out completely. At this point, you begin hearing a grinding noise you feel through the brake pedal. If you hear or feel this, STOP your car and have it towed to the shop. Usually the towing charge is less than the damage you are creating if you drive it to the shop.

As far as the actual brake pedal height is concerned, it is no different than when the car was new. The only condition under which you actually lose brake pedal action is when something has gone wrong with the hydraulics, such as a broken brake hose. Even in that situation, you will only lose half of the pedal. It is very rare to lose all of your brake pedal. But, rest assured, it will never happen because of worn brake pads.

Let's assume your car is in need of a front brake job. You can hear the warning device but you are not metal to metal. At this point, you have several options.

1—Replace brake pads only: about \$ 60.00

## Brakes

- 2—Replace brake pads and machine rotors: about \$ 95.00
- 3—Replace brake pads, machine rotors and overhaul calipers.  
This job is offered by national chain stores like GoodYear, Firestone, etc. with a 24 month and 24,000 mile warranty for about \$160.00
- 4—Replace brake pads with caliper assembly and machine rotors. Offered by many shops with lifetime warranty for about \$350.00

I recommend choosing the first option, the economy job, for about \$60.00. Option 2, which includes machining the rotors, is unnecessary. (more on machining rotors in the next paragraph). Option 3 sounds good because it carries a 24/24 warranty, but it would be very rare to take advantage of and, again, machining rotors comes into play. Option 4 sounds even better than Option 3 when you consider the lifetime warranty. The only problem is, considering the cost, you would have to have six brake jobs to break even.

Let's look at this in terms of miles. With the average brake job lasting 30,000 miles, you would have to keep the car for 180,000 miles to break even under Option 4. But wait, there is more. As for Options 2, 3 and 4, after your second brake job you need to buy new rotors, at a substantial cost, after every two to three brake jobs. The machining wears them down and they fall below the manufacturer's safe specifications. By the end of the ordeal, you will have spent at least five times more money than if you had simply taken Option 1.

Let's discuss rotors in a little more detail. Usually the shop or mechanic wants to cut or machine the rotors. This is unnecessary. Don't have it done unless you have worn through the pads and are scraping metal to metal. As a matter fact, manufacturers issue bulletins instructing dealers not to cut the rotors for a simple brake job. But mechanics ignore them because it cuts into their profits. You may be at a shop that refuses to do the brake job without cutting the rotors. If your brakes are not "metal to metal" just drive away and go to another shop.

For your information, Napa Auto Parts stores sell high quality brake

## Keep Your Car On The Road

pads and shoes with a lifetime warranty. You can buy the parts at one of these stores and have a mechanic replace your old ones with these. If the pads wear out later, the only charge you will have is labor at about \$30.00.

Another bit of advice. Don't let the shop/mechanic talk you into overhauling the calipers for "maintenance reasons". The only time the calipers need overhauling is when they are either leaking or locking up. You know when a caliper is locking up, if after you come to a stop and then take off your car has a tendency to pull to the side where the caliper is locking up and sometimes after a few miles the car stops pulling until you stop again and take off. Usually that wheel will tend to get much hotter, to the point where you may see smoke coming from it. It is rare for the calipers to leak, but occasionally it happens. Calipers are a critical brake component and one item you can't take for granted. If the mechanic says they leak (and he could be lying) your only choice is to repair them.

Most cars still have rear "drum" brakes. This means that two bands like this: "( )" are pressing against a drum. The bands are called shoes and measure about  $\frac{5}{32}$ " thick when new. Even though they are much thinner than brake pads, they usually last 3-4 times longer than pads. When you push the brakes, most of the weight of the car goes to the front making the (front) pads work harder and wear out sooner than the (rear) shoes.

The most likely story you hear from a shop is that your brake cylinders are leaking or seeping. Again, the shop holds the cards and leaves you with no option but to perform the repair.

As far as brakes are concerned, there are a few key points for you to keep in mind. Yes, keeping them in tip-top shape is critical to the safe operation of your vehicle. But, keep in mind that by understanding the braking system, even in very simple terms, you can take control of the situation. Don't let the "danger factor" cause you to get a panic attack every time the mechanic refers to the brakes. The money you save may be your own.



## **Brakes**

### **TROUBLE SHOOTING BRAKE SYSTEM**

<b>Symptom</b>	<b>Possible Cause</b>	<b>Probable Solution</b>
When applying brakes vehicle pulls	A caliper locking up	O'haul or Replace Calipers
Brake pedal fades slowly to floor	Master cylinder	Replace Master Cylinder
Brake pedal pulsating	Rotors or drums Warped	Machine Rotors or Drums
Loud metallic noise	Pads warning Device	Replace Pads
Grinding noise	Pads or shoes worn out completely	Get a complete Brake Job*

\*= Replace pads or shoes, machine rotors or drums which ever worn out to metal to metal.

# 10

## Tires

Tires, like cars, have improved over the past 25 years; from the bias ply tire to today's steel belted radials. These tires require more service but are much better than the old bias ply tires. Now you can get All Season Tires, which in most areas eliminates changing tires in the winter. Mind you the All Weather Tires don't work as well in extreme snow, but for the occasional snow areas, they are fine.

Like cars, the price of the tires has gone up significantly. Depending on the size, a tire can cost up to \$400.00 each. You can expect to pay that kind of money for tires for sports cars like Corvettes, Stealths or Ferraris. At those prices, you have an excellent reason to maintain the service and have them properly inflated.

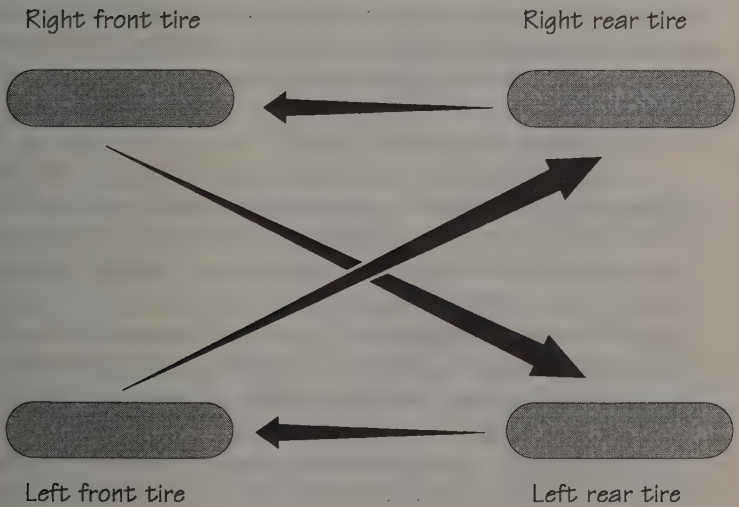
The most common problem with tires is something called cupping. When a car has cupped tires, you can hear it coming because it sounds like the car has square tires. If you look at the tires, you see they are scalloped. The reason tires cup is they have not been rotated. I recommend you have your tires rotated every 7,500 miles. With the proper inflation and rotation, you can prolong the life of those tires to last well over 60,000 miles. Without rotation, it may be just 20,000 miles before they start cupping. Without the proper inflation, you will notice damage in just a few thousand miles. My recommendation is to invest a few dollars and buy yourself a gift, a TIRE GAUGE. Check your tire pressure at least once a month. If they need a couple of pounds of air,

## Tires

spend a quarter and buy some air. In the end you'll come out ahead by a few hundred dollars.

I assure you the shop will give you another reason why your tires are cupping. Sometimes it's valid, but 99.8% of the time it is not. What shops tell you is you need an expensive part called struts or shocks. There is no money for them in telling you your problem is due to lack of rotation. Chapter 11, *Shocks, Struts and Frontend Suspension*, will go into more detail on this subject.

The "new and improved" way to rotate radial tires is to move the tires from rear to front *not switching* sides and moving the front to the rear *switching* sides. In other words, move left rear to left front and left front to right rear.



Tire Rotation

## Keep Your Car On The Road

In the old days of bias ply tires, you could criss-cross all four tires in an X design. But when the steel-belted radial tires came, the public discovered that conventional tire rotation method from the bias tire days did not translate well to the new radials. What happened when radials were criss-crossed was the tires would destroy themselves. This happened because the steel inside the tire molded in a certain direction and, when repositioned after being criss-crossed, the steel separated from the rubber.

The technology has improved to the point where you can switch two of the four tires, as described above. It is still not a good idea to "X" all four tires at once. I'm a little on the conservative side when it comes to tires, so my personal preference is not to switch sides at all when rotating tires. But that's my personal opinion.

Remember when you used to find a full size spare tire in the trunk? I think the reason manufacturers now put that little emergency tire in the trunk is to prevent you from using it in the tire rotation process. Not only is it meant strictly for emergency short-term use, it also gives you more trunk space. You may be interested to know that little tires sometimes cost more than regular size tires.

I'm sure at one time or another you noticed tire debris along the highway. Most of that debris is caused by big trucks. Do you know why? If you think the tires for your car are expensive, imagine the cost of replacing tires for those big rigs. Instead of buying new tires, they buy "recaps" for about 50% off the cost of a new one. When a tire is recapped they take a bald tire and glue new treads on it. There is a 50% chance the tire will last long enough to wear out normally. The other 50% chance is the treads will separate from the tire on the highway resulting in the debris that you've seen.

Believe it or not, there is no damage to the truck when the treads separate from the rest of the tire. In fact, most of the time the tire doesn't go flat and the driver "keeps on truckin'" until it gets replaced at the next truck stop.

Unfortunately, the debris left from disintegrated tires is not as kind to the cars that may follow that truck. Tire debris can cause serious

## Tires

accidents. The following are some excerpts from a recent "Letter to the Editor" column in my local newspaper.

### DEBRIS IN HIGHWAY ENDANGERS MOTORISTS

Editor, The (Knoxville) News-Sentinel:

*I have just watched another one of those commercials where a President of a supermarket chain claims to save us money at the grocery store by using recapped tires on his trucks.*

*If any of your readers drive on our interstate highways, you know they are littered with debris. Most of it just happens to be large shreds of tire rubber from big trucks. Sometimes there are whole tires.*

*Two years ago I wrecked on I-75 ...after hitting a whole tire that separated ...on a big truck. The accident was unavoidable and considered a freak accident.*

*By the grace of God I was not injured; there was damage to my car ...There have been two accidents recently that resulted in permanent injury to two women.*

*I am positive that these tires were also one of the causes of the I-75 pileup in the same area where I wrecked.*

*...I made three calls to report this, but no one was interested. This is as dangerous and shameful situation.*

*End.*

I don't recommend this kind of tire, even if it's only for a moped. Another tire you should not buy is a retread tire. A retread tire is an old, bald tire that has new treads cut into the bald tire. I haven't seen many of them out there but I'm sure someone is still making them.

When you are replacing your tires, always stay with the original size, or an acceptable substitute, the manufacturer requires for that car. Installing bigger or smaller sizes can affect your speedometer, gas mileage, and in some cases, your brakes. Your local tire dealer has a chart telling you what sizes are recommended to replace your size.

Finally, your tires are something you tend to take for granted. They

## **Keep Your Car On The Road**

are a deceptively simple but absolutely critical part of your car that keeps you on the road. Don't try to cut corners when it comes to their care and replacement. Today's high speed travel leaves you with little room for shortcuts.



# 11

## Shock, Struts and Front End Suspension

As the name implies, shock absorbers reduce the jolt to your car by absorbing shocks from bumps on the road. Working with a separate spring, it is designed to reduce road feel. Without the shock and only the spring to absorb shocks, your car bounces up and down, eventually leaving the ground and causing you to lose control of your car.

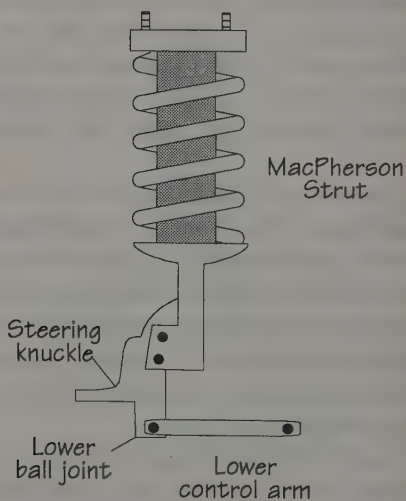
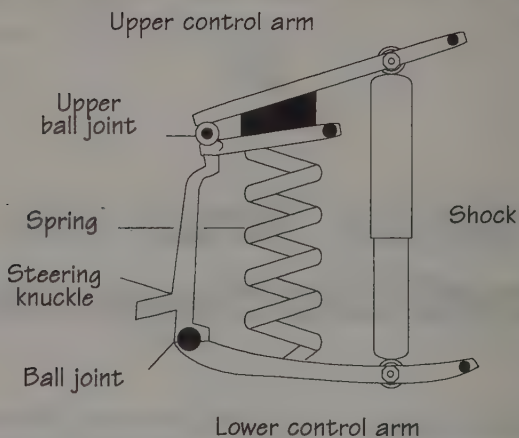
A shock is a canister filled with fluid enabling it to reduce the bouncing effect to your car, giving you a safe and enjoyable ride. You commonly hear it referred to without the addition of “absorber” “shocks”.

A strut is a new kind of shock, named after the man who invented them, Mr. MacPherson. When you see “MacPherson strut suspension” on a car’s standard equipment sticker, it means the car is equipped with struts. Most cars today have them as standard equipment. The difference between the strut and old-fashioned shock is the strut incorporates the spring and shock into one unit. This unit is connected directly to the knuckle, eliminating the need for an upper control arm.

The drawings illustrate both systems.

Struts and shocks are the most common sale item at tire, muffler and department stores. Why? They are easy to sell and have a big profit margin. For instance, even though a shock may cost the store just \$4.00

## Keep Your Car On The Road



## Shock, Struts and Front End Suspension

to \$5.00, they will sell them, installed as a pair, for \$70.00. How long does it take to install them? It should only take about 15 minutes for the pair. Struts on the other hand, are usually more expensive and take more labor to install but are well worth it.

If you are told you need struts or shocks, there is a simple test to see if you really do need them. Just walk around your car and bounce it at every corner to see how much it continues to bounce on its own after you stop. If it continues bouncing, replace the struts or shocks, depending what your car is equipped with. You must replace the front as a pair or the back as a pair, whichever is bouncing. If you see it stops after only a few bounces, they don't need to be replaced. Some cars are equipped with both, struts in the front and shocks in the rear. Most trucks have only shocks all the way around.

There are several ways you can be sold on shocks/struts. One way, covered in Chapter 10 (Tires), is if your tires are cupped. This automatically gives the store a reason to try and sell them to you. Usually they tell you that, unless you replace your strut/shocks within a few thousand miles, your new tires will "cup" just like the old ones and they won't warranty the tires. Another standard line is if you have been rotating the tires and they aren't cupped but just worn from mileage, then the struts/shocks are leaking. Don't forget to use the old bounce test so *you* know when you really do need struts or shocks.

**Beware!** These guys are so intent on selling you struts/shocks they will even try to sell them if the car is only there for an oil change.

Since we covered cupping before, let's explore "leaking". If you were to hear something is "leaking", it is a good bet that you would begin worrying. That's exactly what the shop or mechanic counts on. Some shops/mechanic drag you into the service bay so you can see for yourself that they really are leaking. It is normal for shocks/struts to "seep", so it is quite possible to see moisture around the area. This doesn't mean they are bad—it is normal for them to seep. By using the bounce test you will know for sure if you need to replace them.

This reminds me of a story I saw on the evening news a few years ago. A muffler shop in North Miami Beach, Florida was video taped by

## Keep Your Car On The Road

a hidden camera by the State Government. Complaints piled up on the number of cars needing struts/shocks visiting this particular shop. The mechanic was videotaped picking up an oil can and spraying oil onto the struts to show the owner they were actually leaking. The shop was closed down that same day and assessed healthy fines. It reopened within a week. I always wondered if they learned a lesson or were still practicing these methods. This short story is not meant to imply that most shops pull this, but I assure you there are some that do.

Some people continuously carry excessive weight in their trunks. When they do this, the rear of the car sits very close to the ground. They turn around and take the car to a shop like a Goodyear or Firestone, to have air shocks installed. Well, nowadays that's a no-no. If you carry excessive weight, make sure your car can handle it. Exchanging the regular rear shocks for air shocks or heavy duty shocks can and will impair the effectiveness of the braking system on many cars. The reason is a part your car is equipped with called a "load sensing device". This part determines the weight of the load you have in your car by the level at which your car sits. It sends a message to your braking system as to how much braking power your car needs to stop relative to its weight. Therefore, if you have someone install air shocks or heavy duty shocks, the load sensing device is fooled into thinking there is no extra weight in the car. This makes the car unsafe because it cannot accurately know how much power is needed to stop the car. Make sure to contact the manufacturer before making any kind of modifications to your car. It could save your life. Your warranty may also be voided if you do any kind of modification to your car.

Other front end parts such as the idle arm, tie rods and ball joints are also favorites for shops to sell. They use the same sales technique as they do for brakes "the danger factor". All of these parts are covered by the manufacturer's basic warranty and, in most cases, also by the powertrain (PTW) warranty. It is true that they don't last as long as they used to. Back then they had grease fittings, something almost obsolete today. With grease fittings, every time you went in for a LOF they greased them. Now they are sealed from the factory, and when all the

## **Shock, Struts and Front End Suspension**

grease inside is used up, they begin to fail. The way to tell if you need these parts is to ask the mechanic to take you inside the shop and show you the part. You might not know the part he shows you, and you don't have to know. The important thing is that if it feels loose, the part needs to be replaced. Another way to tell is by how much free play you have in your steering wheel. Try this. Turn the steering wheel in either direction and see how much it moves before the wheels actually move. If it is more than an inch or so, you may have a problem. Sometimes these parts make a noise (like a clucking sound from the front end) when either hitting a bump on the road or when taking off or stopping. This is another good indicator that they need to be replaced.

Another front-end part shops like selling are the C.V. boots. If the car is at a dealer, these parts are usually covered under the PTW. A lot of dealers forget that. Some manufacturers have a deductible, especially on cars built prior to 1992. This part usually costs less than the deductible. The catch here is that if the dealer is doing any other work covered under the powertrain warranty and is charging you the \$100.00 deductible, he has to include the C.V. boots under the same deductible.

It's important to know that many parts on the front end are covered under the PTW. If the dealer is doing anything under this warranty, those parts will also be covered. Refer to Chapter 6 for more information on warranties and the options you have if your dealer refuses to honor them.

# 12

## Air Conditioning and Heater Systems

Imagine driving a car without air conditioning on a hot summer day or in a place like Florida for most of the year. Well, it hasn't been that long since air conditioning (A/C) has become a standard on most cars. I grant you that manufacturers still see it as an option and charge accordingly. But I can remember when A/C was not even an option and the car and roads would not let you go fast enough to catch what we called the "2/50 air circulation system", meaning two windows open going at 50 mph so you could get that hot air blowing in your face. We spend roughly 400 hours a year inside our cars. Without A/C, it would be like spending many of those hours in a portable sauna.

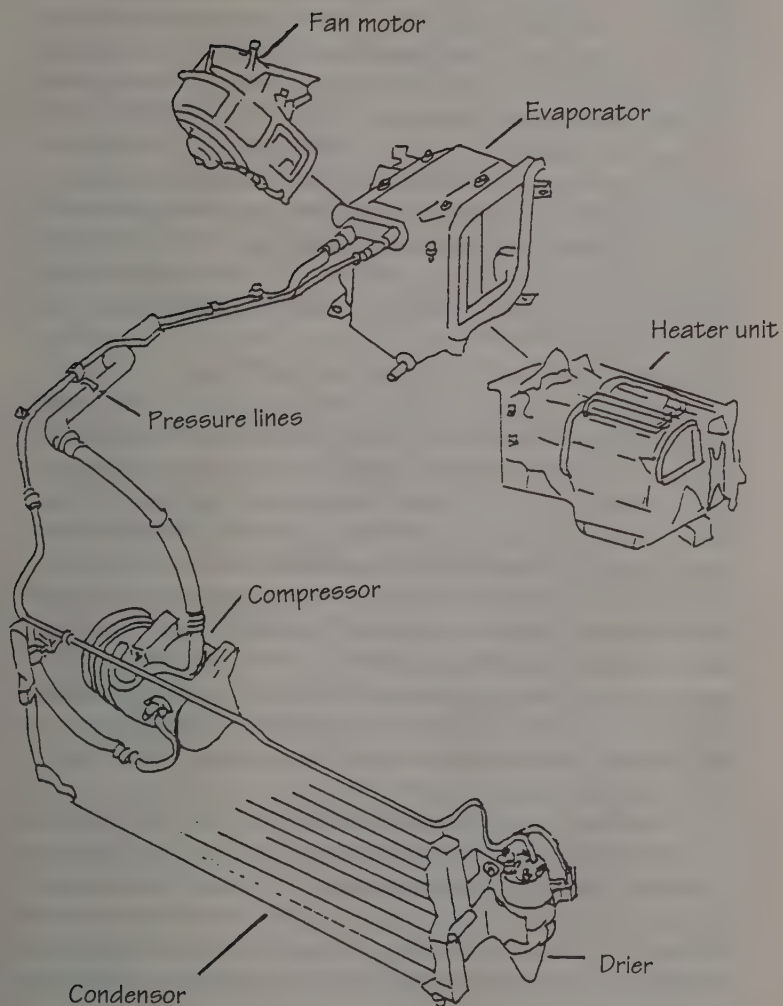
This chapter helps you understand the basics of air conditioning and heater systems. We'll explore what and what not to service on these systems, as well as the most common means used to sell you unnecessary repairs.

There are many parts making up an A/C system, from the on/off switch, to relays, thermostats, compressors, evaporators, driers, condensers and lines, all fitting together as seen in the illustration. In some higher-priced cars, computers are used in the A/C system as well.

One thing you will find is if any of the above parts fail, your mechanic will add the drier to the estimate. Mechanics believe that a drier should



## Air Conditioning and Heater Systems



## Keep Your Car On The Road

be replaced every time the system is opened. The drier's job is to dry any moisture from the system. And when the system is open, moisture goes in. But what mechanics fail to realize is that's why they should vacuum the system after replacing any part that failed. Then again, just because you don't really need the part never stopped them before. Remember, there is money to be made in selling this part. This point is like many others that have been argued between dealers and manufacturers. It is one more case where the manufacturer has sent bulletins to dealers telling them it is unnecessary to replace a drier when doing A/C work. The manufacturer has even gone as far as rejecting warranty claims when a drier was unnecessarily replaced. This has not stopped mechanics from replacing driers as a matter of course, especially to paying customers.

If you have the bad luck of having a problem with your A/C, and you see the drier included on the estimate, you can try to refuse it. There is a 99.9% chance the mechanic will force you to buy it. I have won this argument several times but I'm ashamed to admit I've also lost it several times. The only thing to do is try to make your case, but if it doesn't work you have no choice. The part costs around \$100.00, a lot of money but not enough to suffer in a portable sauna or to take someone to court.

For the most part, there is nothing to service on either the heater or air conditioning systems. It never ceases to amaze me how people fall for the servicing ads when either winter or summer is coming: "Let us service your A/C (or heating system) for \$24.95". I can think of a lot of things to do with that money, like buying a lobster or steak dinner in a nice restaurant. Guess what? So does your mechanic. The only difference is, he's using your money!

Let me explain a bit of basic A/C technology. Your car's A/C system is much like the one in your house. It is a sealed and pressurized system. This means there is nothing to service. In your house, the only thing you service is the air filter. In a car, you don't even have an air filter for the A/C system. If the system is leaking, it's leaking and you know it because it doesn't feel cold. It is not like seeping shocks. The A/C system has too much pressure to just seep, and no maintenance service is going to

## Air Conditioning and Heater Systems

fix it. Plain and simple, it needs repairing. In other words, if your A/C is not cooling and you get the \$24.95 service, at first it may seem fixed. At best, your system will work again for only a few hours or days, depending on how big the leak is. This means you just threw \$24.95 away. A simple but crude way of putting it is an A/C system is like a woman, it can't just be a little bit pregnant. She's either pregnant or not, the system is leaking or not.

What do you get for your \$24.95? Well, they open the hood and look for anything additional to sell you. Sometimes they hook up gauges to see the pressure or just look through a sight glass for bubbles. If the gauges indicate everything is fine or they don't see any bubbles, the mechanic goes for a cup of coffee to kill time so you think he is working on your car. The \$24.95 usually includes a pound of freon, the gas that makes A/C cold. Some of these guys actually put it in because it's part of the deal. The only problem is if your A/C is already full of freon, this procedure makes your system less efficient. Instead of making your A/C cooler, this unnecessary addition of freon actually makes it warmer.

Another line I've heard in many shops is to sell you the \$24.95 service because "freon wears out". Nonsense. Freon doesn't wear out. As a matter fact, in most states it is now illegal to dispense freon to the air. They need an expensive machine to recover all of the freon when, for instance, they replace a part like a locked up compressor. When the job is finished, they must put the same freon back in the system they took out.

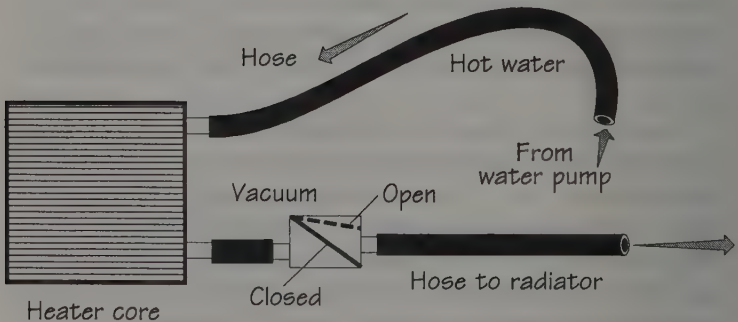
Have you ever thought to turn on the air conditioner in the winter when most places in the United States are either cool or cold? Most people answer "no", or "are you out of your mind?" *Well, you should run the A/C for five minutes at least twice a month.* The reason is to keep every internal part of the system lubricated. Oil keeps your engine lubricated all the time the engine runs. The same is true for the air conditioner. If you don't turn on the A/C, the system will not get lubricated, causing strange things to happen. Let's say it's the first warm day of the year, you put on the A/C for the first time in over six months and, just when you need that blast of cold air, only hot air comes out.

## Keep Your Car On The Road

What happened? A small seal dry-rotted and the freon leaked out, or maybe your compressor is frozen solid due to the lack of lubrication from not running the system for over six months.

The only A/C servicing recommendation I'll give you won't cost you a dime and is the same advice I gave in the Basic Chapter. You should run the A/C for at least 10 minutes a few times during the cold winter months. This lubricates the internal parts, making it almost impossible for A/C failure later, when you really need it.

Cars have had heating systems since almost their beginning. In South Florida, because they were rarely used, the water-antifreeze mixture did not regularly circulate in the system causing the heater core and hoses leading to it to corrode. This led to annoying leaks. The simple, inexpensive way to avoid this was to have the heater disconnected. But with the high quality antifreeze available today and because some A/C systems work with the heater to maintain the selected temperature, the need to disconnect the system has been eliminated. The following illustration gives you some idea what the heating system is all about:



## Air Conditioning and Heater Systems

Like the A/C system, there is nothing to service on the heater. When winter comes, you will see the signs and ads telling you “We’ll service your heater for \$24.95”. What do you actually get for this? They replace your antifreeze and look for something else to sell you. Most of the time they don’t look at the antifreeze they are replacing, they just replace it. There is a tool to check your antifreeze to see how cold it has to get before antifreeze freezes over. But they don’t bother using it. You pay \$24.95 and get new antifreeze whether you need it or not. A safe way to avoid getting ripped off is to follow the recommended schedule of changing your antifreeze every 30,000 miles. This way they can’t play you for a sucker and you can wave when passing a \$24.95 sign.

This reminds me of a story about a shop in a small Florida town I came across while I was working for the leasing company. One day I got a call from this shop. The driver of the car was hooked by the \$24.95 deal. Being a good company man, he decided to save his company some money and order this service. Winter was coming and he travelled the entire state, including the north where it can get cold. So, to play it safe, he went to this shop and ordered the service.

The shop called us, as they were required to do, to authorize the work. My first question was, “Does this car need the service?” The mechanic said “Yes.” (Like he would say “no”.) Then I asked whether he tested the antifreeze. Yeah, sure. I next asked, “What was the reading?” He said it was only good to 30 degrees below 0 degrees centigrade. Well, being I’m from Florida, I know it doesn’t get that cold there. So I told the mechanic the service was unnecessary. Right away he jumped and said, “Yes, you need it.” I asked why, since it doesn’t get that cold in Florida. He replied (and this is a classic), “No, but with the wind chill factor it could.” Well, I unprofessionally started laughing out loud. The mechanic was confused and shocked by my laughter.

When I finally got myself together, I asked him whether he knew what “wind chill factor” meant? He replied “Yes, it’s how cold it feels.” I said, “Bingo, that’s right; it’s how it feels to humans. This doesn’t mean what the temperature actually registered. If you put a gallon of water outside, it won’t freeze until the actual temperature gets to 0 degrees C

## **Keep Your Car On The Road**

(or 32 degrees F). The wind chill factor could be 30 below, but if the actual temperature is just 1 degree above 0 C, the water won't freeze." The mechanic was puzzled but realized I was right. His reply was "I sell this service everyday and sometimes I use the same reason. No one ever questioned me before." I finally thanked him very much and asked him to let the driver go on.

I'm sure by now he completely understands the difference between wind chill factor and actual temperature readings. I'm also sure he has used the same excuse over and over again. And, like my wife said when I told her the story, some people won't stop to think about it because it sounds like a valid reason. The moral of this story is—use your head and don't let smart excuses rip you off.

Let me leave you with three simple thoughts from this chapter. First, other than running your A/C a couple of times during the winter, there is nothing to service on your A/C. The only servicing you need to remember on your heater is to change the antifreeze every 30,000 miles. Finally, don't get sucked in by funny ads.



# 13

## Complaints

Independent shops and dealers should have a complaint department, especially when they receive so many of them. If you had a problem, they would direct you to the complaint window where someone with a super attitude would be waiting to greet you, hear you out, and correct any problems on the spot. Unfortunately, I don't know of anyone who services cars that has such a department. This chapter is devoted to the "how to's" of effective complaining.

There are many ways to confront a shop or mechanic when your car is not fixed right or there is, let's say, a big spot of grease on your carpet or the seat. An ineffective way to do this is by holding a shotgun at the person, because you'll probably lose in the end. Don't laugh. I've seen this happen personally and heard news stories about discontent customers. In one story the man shot the service manager, a mechanic (who didn't work on his car but was using the same bay rack the original mechanic used) and finally killed himself. The moral of this story is, besides the fact that he killed the wrong person, that blowing somebody's brains out is no way to resolve anything. Imagine, this guy went off the deep end and his car is probably out there all fixed up by now.

The first piece of advice I'll give you when in a similar dispute is, "Don't lose your cool". Remember, this is only a machine made out of steel, plastic and glass. No matter how much it costs, it is still a machine. When you lose your cool, you can't think straight and end up saying and

## **Keep Your Car On The Road**

doing things that will usually put you in a worse position. You want to do whatever is in your power to maintain the upper hand in the situation. With a calm voice tell your shop about your complaint, don't blame anyone and treat it as a common mistake, oversight or lack of communication. Try not to raise your voice even if the other person does not seem to comprehend your problem. Try to reason with them and if this doesn't get results, go straight to the owner's office and explain the dispute you are having with the shop.

Owners usually want to maintain very good relations with their customers and sometimes will bend over backwards to help, even if it means it's going to cost them some cash. A smart dealer or shop owner knows there is no better advertisement than word of mouth.

In the event you don't get satisfaction using my first piece of advice, my next recommendation is to contact a local television station for help. Today many local stations have a consumer help department to give you a little more clout. This usually gets a rapid response. These shops don't want the free advertising on the 6 and 11 o'clock news saying what a bad shop they are. I've seen problems corrected in record time when shops were contacted by a television consumer help department.

What most people want to do when someone has done something wrong to their car is SUE. This option should not be even considered in most cases. The time and cost involved usually is higher than the problem itself. In most cases you have to pay a lawyer to represent you, as well as paying court costs if you lose.

By the time the ordeal is over, you have lost many hours of work and, with the lawyer's fee, you may likely end up losing money even if you win the case. The shop reimburses you the few hundred dollars they charged to begin with and no one gets to know what kind of shop they are.

As mentioned in an earlier chapter, shops don't like to be sued, but going through the process is hardly worth the effort, especially if you are only talking about a few hundred dollars. As an alternative, an inexpensive way you can get their attention is by sending a Certified Letter from a lawyer treating it like there will be a lawsuit. This letter

## **Complaints**

can cost you as little as \$50.00 and can get good results. A letter like this can move these guys quickly.

If you are working with a dealership or a national chain and you are not getting any help from either, call the manufacturer or the national chain headquarters. They are usually quick to respond and may get involved on your behalf.

In conclusion, don't take the law into your own hands. Try to keep control of the situation by resolving issues calmly and get other people to help you. Finally, remember you always have the option of reporting any of these shops to your Better Business Bureau. They do keep records of complaints and report them to people who inquire about a business' reputation.

# 14

## Selling Your Car

Here is a twist. When was the last time you read a book advising you on how to buy a car, keep it running virtually forever at the lowest cost, and advising you on how to get top dollar when you try to sell it? Well, if you're looking for a one stop auto information center, you've come to the right place.

A few years ago while working for a dealership, I thought about trying to make extra cash fixing cars in my front yard on weekends. Instead, I decided to try my hand at buying and selling cars. I started with my own car, a 1973 Dodge Charger. I had just bought a mini-motorhome for camping and soon found I could use it daily as well. It was small enough to park easily and the gas mileage was great. So I decided to sell the Charger, which seemed to develop a love affair with the gas station.

As soon as I sold it, I used the money to buy another car to sell. Every time I sold a car I bought a higher class car until I started selling Jaguars. I had worked for a Jaguar dealership many years back and always wanted to own one. I had no problem buying or selling them for a good profit. As an added bonus, I was able to use them, at least for a few weeks, for running errands and visiting friends. This was all going so well that I started getting a little overconfident at my ability to sell my cars quickly. Once I bought a Jaguar when someone told me about another one that was available at a great price. Even though my money was already tied up, I decided I had to have the second one, so I bought

## Selling Your Car

it using my American Express Card. As a result of this experience, let me pass on this bit of advice: NEVER DO THAT. This almost wrecked my nerves knowing that by the end of the month I had to come up with the cash to pay off the credit card. What started out as a great deal turned into a race with time. At the eleventh hour, I sold the car and found I made a good profit. But my nerves never completely recovered.

After doing this for a few months, my neighbors became either suspicious or jealous. Someone called the police and when the police checked me out, they told whoever had complained that, as far as they were concerned, I was not breaking any laws. The next day, the city was at my door and told me very politely that I couldn't run a business out of my house. I looked for an inexpensive place to continue, but to no avail. Reluctantly, I gave up my dreams of striking it rich through buying and selling cars. I still have two Jaguars that I keep for my personal use.

That story illustrates that selling a car is not as bad as you might think. I'd like to share some techniques I found successful so you can sell your car fast for the money you want.

It is easy to sell your car for top dollar. In fact, there are only four steps you need to follow. First, you have to invest a few dollars in the car you want to sell. Have your mechanic thoroughly check it out and correct all of the obvious problems. Second, have the oil and filter changed. Third, have the car completely detailed by professionals. This could cost you up to a hundred dollars or so, but in the end will be well worth it. Fourth, advertise it in your local newspaper. The first person that sees the car will love the way it looks and be impressed by how well you have cared for it. If he has a mechanic look at it, the mechanic will not find anything wrong. That should make it a sure sell for the price you wanted.

By following the four simple steps outlined above, I was able to make a nice profit selling cars on the side. Remember the Jaguar I bought with the credit card? No repairs were needed so I only had the oil change and a back breaking detail job I did myself. I bought the car for \$4,500 and sold it a month later for \$8,000, netting me \$3,500 for an oil change, detail job, and biting my nails down to my knuckles.

## Keep Your Car On The Road

Let's say you are ready to buy a new car. You have several choices to make concerning the one you've been driving over the last several years. You can give it to your son who's about to turn 16 and been nagging you for "a set of wheels". You can follow my four-step approach and pocket a few dollars. Or you can trade in your car when you buy a new one and think you are getting a good deal for your old car. Nonsense. You may feel that selling it yourself is not worth the trouble. But if at all possible, don't trade in your car. You are definitely selling yourself short.

There are three ways a car is valued. First is the loan value, or the maximum a bank will lend you to purchase a particular car. The second is trade value and the third is retail value. Trade value is always less than the loan value. It doesn't matter what a new/used buying contract says they are giving you for your car, it still will never be higher than the listed trade value.

Before you even step on the showroom floor the dealer has already calculated the rock-bottom price they will take for their car. For example, if the car lists for \$15,000 and the dealer's net cost is \$11,000 their lowest price may be \$12,000. If your car has a retail value of \$5,000 and the trade value is \$3,500, they can show you on paper that they are willing to give you \$4,500 for your car. Guess what happens to the extra \$1,000 they are willing to "give" you on your trade? Their rock bottom price on this sale is \$13,000.

Now, if you were to buy the same car without a trade-in, you could get it for \$12,000. Then, by following the simple four-step technique, you could sell your car for its retail value of \$5,000 or more, and net yourself an extra \$1,500.

The moral of the story is that you don't have to be a professional car salesperson to successfully sell your car at a profit. Invest a little money and time, sit back and wait for the phone to ring and I guarantee you'll end up with more in your pocket at the end of the transaction.



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## What It All Boils Down To

We've really covered a lot of territory in this book. I've tried to be comprehensive without going into too much technical depth. My objective was to raise your awareness as to what's going on in the auto repair minefield. Unless you've really studied this book or have a photographic memory you'll never recall every detail.

Therefore, I hope you'll refer back to this book whenever you need to recall helpful tips, maintenance schedules, or system-specific information. Unfortunately, you won't always have this book with you when you need it most —when visiting your dealer's service department or you're out on the road away from home. So, let me leave you with a few commonsense tips that require no technical knowledge whatsoever. These tips are what it all boils down to in the never-ending battle to "keep you car on the road and your money in the bank".

Service your car on a regular schedule. Tell the service writer what *you* want to have done. **DO NOT** buy from the dealer's "service menu".

Don't just buy a car based on cost and good looks. Consider safety options, track record, and warranty coverage on major systems of the desired models in your price range.

Don't believe any ads you see or read on cars, gasoline, or service specials. Nine times out of ten there's a catch.

## **Keep Your Car On The Road**

At the very least, browse through your owner's manual. Know where it is so you can refer to it.

Don't buy off-brand parts. Replace parts on your car with the brands that were originally installed by the manufacturer to preserve your warranty rights.

When you bring your car in for repair, describe the symptoms only. Don't try to diagnose the problem yourself. Leave problem diagnosis to the experts.

Your dealer and manufacturer are not one and the same. You may have more of a friend in your car's manufacturer than you realize. Use them for warranty questions and as a source of help in serious disputes with your dealer. The same holds true for corporate headquarters of national service chains.

When it's time to buy a new car, sell your old car yourself. With a little investment in time and money you'll do far better than using it as a trade-in. You'll have more bargaining leverage on the buying side as well.

Finally.

Don't let these sharks use you for bait. Be a skeptic. Remember that their purpose in life is not to serve but to sell. Everytime you pull into their parking lot it's another opportunity to sell you something you don't need. Ask questions and make them earn their money rather than steal yours. The more you know about your car the less likely you'll be sold down the river.

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